

Issue 139

PS

1964 Series

THE PREVENTIVE MAINTENANCE MONTHLY

WATDAYAMEAN
IS OL' FASHION MAINTENANCE
NECESSARY...LISTEN BOY,
WE'RE 378,000,000,000 MILES
AWAY FROM OUR DIRECT
SUPPORT.

THEN I'D BETTER
GET THOSE REPAIR
PARTS ORDERED
PRONTO.

SPECIAL FEATURE
PUBS—HOW TO GET 'EM
SEE PAGE 2

Your gear
can stay
"GO"
only if
YOU
do your
maintenance
RIGHT
and
on time...

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THE
PREVENTIVE
MAINTENANCE
MONTHLY

THIS IS TH' "CP"...
BACK HOME
THEY ARE PULLING
THEIR SUMMER
CHANGE-OVER SO
DON'T GRIPE!

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**You've Just
Been Inspected—**

WHAT DID

The inspector has just walked out the gate.

Now it's time to ask yourself what you learned from the inspection.

Well . . . if you tried to pull the wool over his eyeballs by going heavy on spit-and-polish, you found that he knows two old sayings by heart: "Looks can be deceiving" . . . and "Beauty is only skin deep." In other words, he knew what he was looking for.

You learned whether the maintenance of your equipment is up-to-snuff. And when you added everything together, you got a good picture of the overall condition of your equipment.

Finding out about the overall condition of your equipment, you learned just how good your maintenance program is. The inspection showed you where you're weak and where you're strong.

If you came out of the inspection with a lot of points, you can figure you have a good operation. If you're hurting for points, it's time to take a long, hard look at the way you do things.

You also learned whether your way of maintaining your log book records jibed with the inspector's.

If you asked any questions, you found (at least you should've) that the inspector was willing to answer 'em. And if he didn't know the answer on the spot, he said he would find it for you.

In case you asked for help on filling out reports—an EIR, for instance—you learned (once again . . . you should've) that the inspector was willing to pull up a chair and explain things.

The inspector probably offered some suggestions on how you might better maintain your equipment. That means he said something like, "You ought to try doing it this way" . . . and not "You will do it like this."

Another thing that you learned is that a good inspector brings you up-to-date in case you're behind-the-times on things like publications and procedures.

You learned, if you've given it some real thought, that the inspector—any inspector—is on your side. After all, he has just as big a stake in things as you if the balloon ever goes up. Why? Because he represents your outfit's Commanding Officer. He is the eyes and ears for your own CG . . . be he at division, post, army . . . or whatever level.

If you scored low in the inspection, you learned something right close to home—your unit CO can be darn hardnosed about the situation.

All the learning in the world won't do any good, tho, if you don't put it to good use.

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THE PREVENTIVE MAINTENANCE MONTHLY
Issue No. 139 1964 Series

GENERAL AND SUPPLY

How To Get Publications 2-7

Publications	37	Drum Care	62-63
Pen 'n' Pencil	60	Water Bag	64
LIN Info	61	Automatic Switch	64
Barrier Them			
Supply	8, 10, 16, 18, 20, 21, 22, 23, 40, 41, 44, 45, 46, 47, 56		



FIREPOWER 8-17

Hawk	8	Ballistic Computer	13
Nike Hercules	9, 10	M103 Tank	14
105-mm Rifle	11	M31 Periscope	15
Cleaning Clue	11	New Tools	16
H-J Launcher	12	Elevation Check	17



GROUND MOBILITY 18-28

Filter Facts	18	Leveling Jacks	23
Battery Tips	19	Scorpion Scoop	23
M113 Filters	20	Horn Button	24
Point Scrounger	21	Bad Cleaner	25
TM Misprint	21	M135 Bumper	25
Starter Buttons	22	Winch Ties	26
No Reflectors	22	M56 Lubing	27
Stencils	28		



AIR MOBILITY 38-49

Spark Plug Kit 38-49



COMMUNICATIONS 50-59

PU-532	50-52	AN/GRC-19	56-59
AN/FPS-1	53	No Support	59
AN/VRC-10	53	Receiver Tips	59



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PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to:

Sgt. Half Mast,
PS Magazine,
Fort Knox, Ky.
40121

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PUBLIC HOW TO



"My Kingdom for a horse."

Maybe you've changed it to "My Kingdom for a TM," especially if you need to do maintenance on your equipment and you've got nothing to go by.

Before you start calling anybody names, maybe you'd better see if you're to blame for not having that manual. The thing to remember about pubs is this: **If you don't order 'em, you won't get 'em.** And nobody but you will make sure you get pubs.

When a CMMI hits you, you'll find the inspectors quoting Appendix II, Para 1c of AR 750-8 (21 Aug 62). So what do you do to make sure you get the pubs you need?

In the first place, there are  ways you get  as they're issued:

PINPOINT

For Administrative Pubs

DA Form 12-4 } Go thru
DA Form 12-8 } channels* to
DA Form 12-9 } Baltimore

For Technical Pubs

DA Form 12-31 }
DA Form 12-32 } Go thru
DA Form 12-33 } channels* to
DA Form 12-34 } St. Louis
DA Form 12-35 }

*Normally means to battalion level, and from battalion to the publications centers. Many more forms are being added, especially for technical manuals.

FORMULA

DA Form 12
DA Form 12-1 } To Post or Division Publications Section.
DA Form 12-2 } These are used to set up formula
DA Form 12-3 } distribution.

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ARE YOUR ORDER
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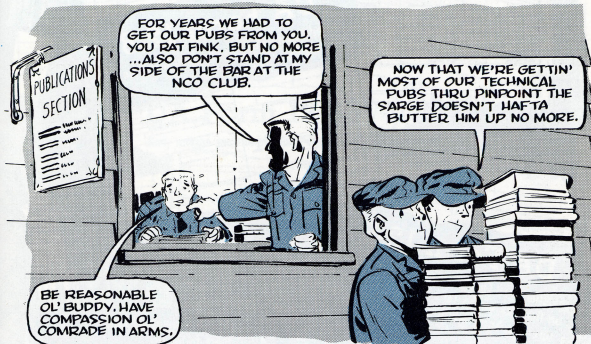
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HOW PINPOINT WORKS



Pinpoint distribution works very much like sending an order to a mail order house through the local catalog office. You can make out your order form, then take it to the catalog office and they'll check it over and mail it to the store that handles mail orders. And your order is mailed direct to you.

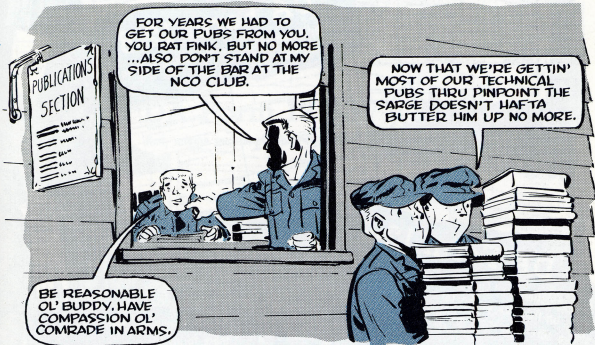
On pinpoint which includes company

and battery size units, you fill out the DA 12 forms and send them to battalion for review. Battalion mails them to the U.S. Army Publications Center (Baltimore or St. Louis) for direct distribution of pubs to you. On pinpoint which stops at group or battalion level (such as AR's and circulars) the headquarters clerk orders the publications you need.

ATIONS GET 'EM



HOW PINPOINT WORKS



Pinpoint distribution works very much like sending an order to a mail order house through the local catalog office. You can make out your order form, then take it to the catalog office and they'll check it over and mail it to the store that handles mail orders. And your order is mailed direct to you.

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DA Form 12-4

DA Form 12-1
Pubs Indexes (DA Pamphlets), PS Magazine,
General Orders, etc.

[illegible]

DA Form 12-8

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Allied Communications and Joint Army, Navy,
and Air Force pubs.

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DA Form 12-9

DA Form 12-5
DA Regulations and Circulars. Be sure to read the instructions on the back of this form. It explains the subjects. Make sure you know which Class of Distribution you come under.

A—To company level.

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C—To installations and divisions.
Dept. of the Army and m

- C—To installations and divisions.
- D—To Dept. of the Army and major commands, and installations and activities directly under these.
- E—To Dept. of Army staff and major commands.

Your battalion will send these forms to:

**Commanding Officer
U. S. Army Publications Center
2800 Eastern Blvd.
Baltimore, Md. 21220**

The DA Forms for administrative publications are:

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Pubs Indexes (DA Pamphlets), PS Magazine, Bulletins, General Orders, etc.

DA Form 12-8

Allied Communications and Joint Army, Navy, and Air Force pubs.

DA Form 12-9

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Here are the pinpoint distribution forms for technical pubs:

DA Form 12-31

Army Aviation. Order by echelon of maintenance. That instructional column (I) covers such items as Training Circulars. You can use the OTHER block for pubs of a general nature but do not cover any specific equipment or groups of equipment.

DA Form 12-33

Rail, marine and amphibious equipment

DA Form 12-34

Now don't go "overboard" on this form or you'll be snowed under by SM's. When you order SM 10-1-C6-SL, SM, and PL, you'll get everything from laundry and dry cleaning equipment SM's to cemeterial and mortuary equipment supplies SM's. You'll only be getting one DA Supply Bulletin for the list of adopted items — SB 700-20 (Sep 63) — so don't think you've been short-changed when you get just one pub.

DA Form 12-32

Missile and rocket.

EVERY PIN POINT DISTRIBUTION FORM HAS SPACE FOR AN ACCOUNT NUMBER ASSIGNED TO YOUR OUTFIT BY THE PUBLICATIONS CENTER.

DA Form 12-35

Nuclear Weapons. Don't forget your TOE number because there may be pubs that apply to your specific outfit.

Your battalion will send these forms to:
Commanding Officer
U. S. Army Publications Center
1655 Woodson Road
St. Louis, Missouri 63114

Here are the pinpoint distribution forms for technical pubs:

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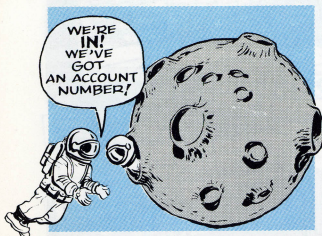
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Your battalion will send these forms to:
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1655 Woodson Road
St. Louis, Missouri 63114

Every pinpoint distribution form has a space for an account number, and that account number is assigned to your outfit by the Publications Center after it gets the approved forms from battalion.



You may have the same account number for getting pubs from both Baltimore and St. Louis, or you may have a different account number for each center.



Once your outfit gets an account number, your pinpoint pubs will be mailed direct to you from Baltimore or St. Louis, except for those which are furnished through your group/battalion, etc, headquarters.

Whenever you send in a revised form or another DA 12 Form, you still have to send it thru channels for approval.



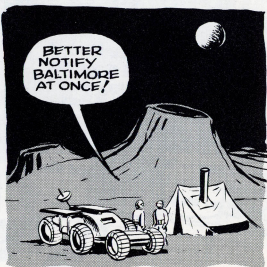
Say you have an account number for pubs listed on DA Form 12-4, and you want to get some pubs that are listed on DA Form 12-34. You still have to send the 12-34 thru channels for approval.

Any time you need more, less, or none of the pubs you're getting that are on pinpoint, you change your distribution by sending through channels a revised DA Form 12-(series number that applies).



Remember, once your outfit gets an account number, it stays with the outfit even if you change location. And, if you do change your location, be sure to notify Baltimore and St. Louis of your new address. The forms tell you how.

In order for a staff (for a battalion or regiment, for example) to get their pinpoint pubs, the DA Form 12-series will have to be sent to St. Louis and Baltimore, and an account number will be assigned.



You'll find blank spaces on the pinpoint forms. You can't write in requests for other pubs unless you have the word from the Pubs Center; they'll tell you what to put in the spaces.

Army National Guard pinpoint distribution is currently limited to the parent TOE unit of Authorized ARNG aviation maintenance shops and on-site Nike Hercules units. All other publications are handled by the state AG.

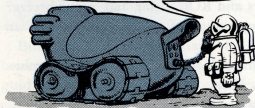
Army air Reserve units are on pinpoint for aviation pubs. Your Reserve corps headquarters puts out the word on other pubs.

FORMULA DISTRIBUTION

Now for the pubs you don't get on pinpoint. How do you get them?

There's a distribution formula in each of these publications that'll clue you as to who gets what. If your outfit's listed, you'll get that particular pub from your local publications section . . . if you need it. If your TOE is listed in

WADDAYAMEAN WE CAN'T HAVE IT...OUR OUTFIT IS THE OLD 201 CAVALRY AND FOR THREE GENERATIONS WE'VE BEEN GETTIN' "LEATHER SADDLE MANUALS" OUR TOE LISTS IT!!

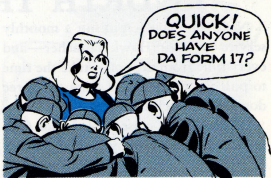


the formula but the pub officer finds out that you don't really need it, he won't send it to you. The pub officer can also get and give you any pub you

need even if your TOE isn't listed in the formula. You can find all of this in paras 68 and 70 of AR 310-1.

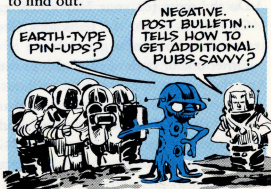
Extra Copies

DA Form 17 is used to ask for additional or replacement copies of pubs. When you get your pinpoint distribution and find there aren't enough copies, then you send the DA Form 17



to St. Louis or Baltimore, depending upon the publication. Be sure to include your account number and statement explaining why you need the extra copies. This'll get you extra copies on a one-time basis; it won't change the number you get automatically by pinpoint.

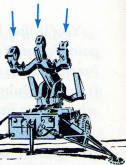
Your local publications section will tell you how to get additional or replacement copies of pubs that are on formula distribution. This is usually covered in a post memo or bulletin. If you don't know, make it your business to find out.





SHAPE UP, TROOPER!

IN CHECK THAT RUST!

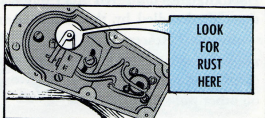


WORTH THE EFFORT

Next time you're pulling a monthly service on your Hawk launcher—and every time from then on—take the time to pull the cover plates from the three downstep switch housings.

Then take a close look inside and see if you can spot any rust, especially on the part of the arm that swivels around the post. If you run into any, get rid of it with some crocus cloth.

Rust on the part of the arm that swivels could keep the arm from moving and closing the microswitch the way it oughta. So, as a finishing touch,



use a little OAI (instrument lubricating oil) at the point where the arm rotates around the post. Be sure a new gasket is installed each time the cover plate is removed.

Of course, if you run into more rust than you can handle, then it's time to sing out for your support people.

TENT MUST HAVE GUY LINES

TENTING TONIGHT



Do the tents for your Hawk CW radars and ROR radar flap in the breeze? Or worse . . . do the tents look like they came out on the short end of an argument with a meat grinder?

Either one or both of these things could happen if you have the wrong tents. And the wrong ones are those without guy lines.

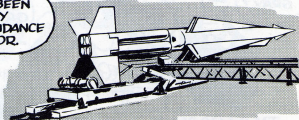
The right console tent—the one that has guy lines and gets used with CWA, LPI and the ROR radars—is listed under FSN 8340-823-6965. It's in Section II—the basic issue items list—in the -12P/1 TM for each radar.

And to complete the picture, make sure you have a copy of TM 10-8340-203-24P (Dec 62) on hand.

READY... AIM... FIRE!

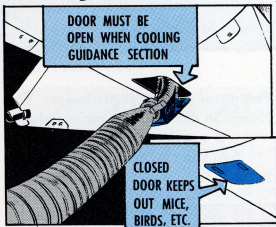


"SOB" WE'VE BEEN
EVICTED...THEY
CLOSED TH' GUIDANCE
ACCESS DOOR.



You can throw up a round-the-clock armed guard... set out traps... fence-in the area... and have nets on hand. But that's an expensive way—in men and equipment—to keep mice, birds and what-have-you from getting into a Nike-Hercules missile by way of the guidance section access door.

True... when the hose assembly used for cooling the guidance package is connected, the door has to be open. And everything and its brother and sister can get inside the missile.

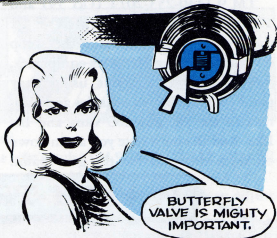


DOOR MUST BE
OPEN WHEN COOLING
GUIDANCE SECTION

CLOSED
DOOR KEEPS
OUT MICE,
BIRDS, ETC.

But the hose doesn't have to be hooked up when you're not cooling the guidance section. So take the easy way out when you're not using the hose for cooling by disconnecting it and closing the guidance section access door.

There's one thing to remember, tho. The coupler end of the hose has a but-



BUTTERFLY
VALVE IS MIGHTY
IMPORTANT.

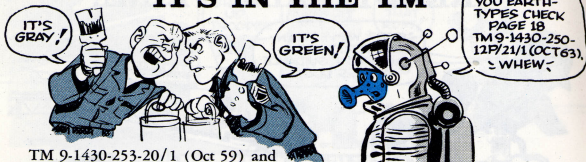
terfly valve that's designed to provide a load in case the coupler end is accidentally disconnected from the missile. The load is needed, of course, to keep the blower motor from burning out if the coupler does break loose.

So... don't take the hose off the pipe assembly because you'll take the butterfly valve out of the picture if you do.

Closing the access door when you're not using the hose assembly to cool the guidance package helps take care of your problem. But you're still left with the problem of what to do when the hose is hooked up to the missile—leaving the access door open.

The answer, in a couple words, is nothing much. Maybe it'll help you to know, tho, that the people with the slide rules are trying to come up with an answer or two.

IT'S IN THE TM



TM 9-1430-253-20/1 (Oct 59) and TM 9-1430-253-20/2 (Feb 61) . . . they're the TM's that have the scoop on painting Nike-Hercules equipment.

The TM's talk about using gray paint for working on consoles and cabinets in the BC and RC vans and the like. And the pubs give you a run down on stock numbers for the gray paint.

But some Nike systems use a light green paint on the consoles and cabinets. So what do you do?

Why you turn to page 18 of TM 9-1430-250-12P/21/1 (Oct 63). You'll find what you want there—I-pt cans of lusterless green enamel listed under FSN 8010-844-0871.

WATCH THE HOOK

Dear Half-Mast,

On page 24 of PS 131 you answered a question about rusty chains on the Nike-Hercules portable hoisting unit.

Does the answer also apply to the hook with the hoisting unit?

Sgt G. L.

Dear Sergeant G. L.,

Yup.

And the same deal goes with other hooks—like the ones on your rocket motor cluster hoist beam and the hook on such vehicles as the M62 wrecker.

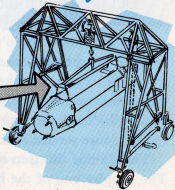
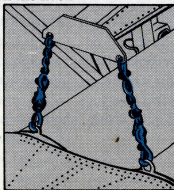
That is, there's a coating on the hook

that turns brownish with age. The change in color doesn't mean a thing.

But if rust does show up on the hook . . . then you take heed of what it says in TB 9-337.

Half-Mast

COATING TURNS BROWNISH WITH AGE - BUT IF YOU SEE RUST ON THE HOOK LOOK INTO TB 9-337.



HER THREADS SHOW

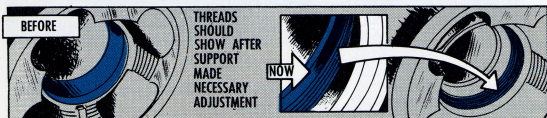


WOT!



Y'say the recoil compensating ring on your 106-mm rifle looked bare when you sent it to support for its first 500-round adjustment?

And it came back wearing threads?



So, now you wonder if it's safe to fire?

Don't blame you for wondering. Your rifle's pub (TM 9-1000-205-12, Mar 59, with Change 1) doesn't say a thing about its looking different.

But, ease off. Threads should show after support's made the necessary adjustment.

This adjustment, like it says in para 58, returns the muzzle velocity to new-rifle condition. This means, though, that the weapon'll have a small rearward motion when you fire it—something it'll lose the more you use it . . . till it'll have no movement. Then, after a while, a new forward movement will set in and you'll be back where you were—needing another adjustment.

Feel better now?

THAT BIG FAT **BUT**



OK, men, let's get these cotton pickin' answers straight so's you don't ruin the blued or polished bearing surfaces on your small arms.

Yes, in a tight field situation, you can use laundry soap for cleaning your piece if'n you can't get hold of some bore cleaner, BUT . . .

Only if you immediately dry your weapon good and lube it even better to keep it from rusting.

No, you can't use steel wool or crocus cloth to get rid of rust stains,

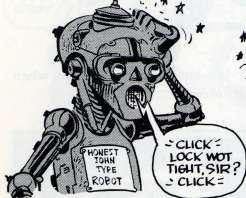
BUT . . .

Your armorer can use 'em 'cause he's a special trained type who won't rub off the protective finishes like you're apt to or foul up critical weapon dimensions.

Yep, you only use the cleaning materials and procedures spelled out in your weapon's TM or FM. And always follow this cleaning bit with a thin coating of the recommended preservative. This'll keep your weapon healthy and yourself gig-proof.



LOCK 'ER



It's enough to bald you . . . when the folding beam lock on your M386 launcher fails just as you're unloosing an Honest John.

The back-blast separates the beams. They fly back with an awful "whump." And most of the parts—including the beams—take a powerful beating.

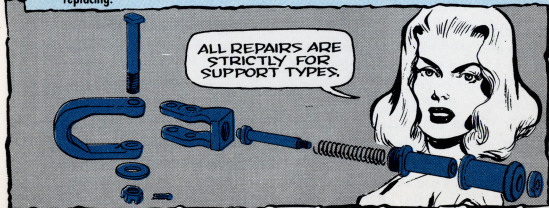
Wha' hoppin? What can you do to prevent it in the future?

Like as not the lock failure was caused by one of two things. Either somebody (not you, of course) made with an unauthorized welding repair on the hook. Or, somebody (you, maybe?) didn't make sure the locking pin was fully engaged when he locked the folding beams in firing position.



Here's what you can do to avoid a bad repeat performance:

1. Keep your cotton-picking hands off repairing any of the lock components. That's strictly for support types.
2. Get your support guys to take each lock group apart semi-annually. Get 'em to inspect the components for cracks, fractures or other defects. And get 'em to replace any parts that need replacing.



3. You inspect the beam lock for proper adjustment and engagement of the locking pin before each and every firing mission. If you find there's not enough tension in the lock group to prevent movement or play of the folding beams, get your armorer to increase the tension by adjusting the position of the lock hook—like it's outlined in Para 65 of TM 9-1055-205-35 (Mar 59). These instructions'll be switched to the next change to the -20 TM, Connie has learned.

4. And **you** make mighty sure the lock's locked good when you put the beams in firing position. You can tell in daylight by looking and after dark by feeling the end of the sleeve.

If the nut's flush, it's locked OK.

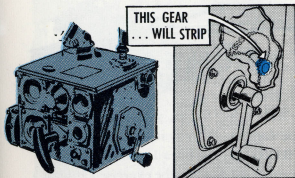
But if the nut sticks out even a $\frac{1}{4}$ inch, it's not locked.

Get it?

Now, it's gonna take quite a bit of pressure to overcome the over-center feature of the lock and to engage the lock pin (by pushing the handle out straight)—even when the lock's adjusted right.

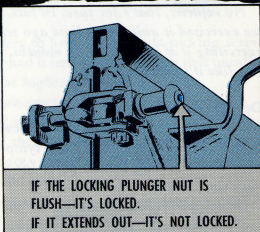
But, whatever else you do, **DON'T** use a hammer or any other tool to help lock it. Finger or hand pressure should be enough.

ABOUT YOUR M13 BALLISTIC COMPUTER



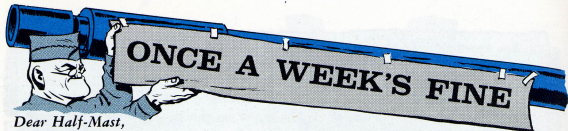
There are times when you may think you're hep to any situation, but it may not be true. Take, for instance, when you're using the M13 ballistic computer in your M48 tank.

Unless you're sure you know just



which crank, or handle, or knob does what, then maybe you'd better ponder a bit.

You could run into a passel of trouble if you use the maximum range correction above 4400 when you have the ammo indicator on HEP T142E3 and the range correction above +3. It hits the manual stop and something's got to give, and most likely it will be some of the gears. So—double-check that range correction to see that it's not above +3 before you select HEP T142E3.



Dear Half-Mast,

Somebody said you have an MD degree (Doctor of Maintenance) so here goes: Can you diagnose this and prescribe a treatment? Our M103 tank's 120-mm gun developed a terrific leak in the hydropneumatic equilibrators and we can't figure why.

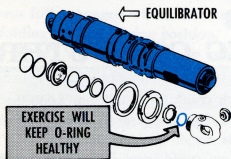
No injuries, that's for sure. In fact, it's not been used at all lately, except that we exercised it quite some time ago while obeying what TB ORD 303 says about exercising it at least every six months. And the gun's been parked in travel lock, too, like it's supposed to be.

Sgt. R. A. C.

Dear Sergeant R. A. C.,

Ah-hh, here we go again. Quite a few of these M103's are showing this symptom after standing in one place for a long time in travel lock.

Being parked in travel lock's not the problem, though. This takes the pressure off the seals, so keep parking it this way.



But the cause is simple, and any maintenance practitioner'll tell you the cure's even simpler.

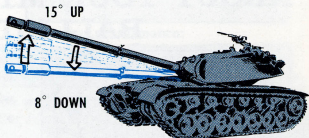
What happens is this: The elevating piston O-ring seal dries out and dry-rots from lack of lube. Then you have a leak.

The best cure is prevention. If you'll partially exercise the equilibration system once a week by crew operation, you'll lube the rubber in the O-seal and

keep it healthy.

The exercising bit for equilibrator assemblies mounted in the M103 120-mm gun tanks is pinpointed in Para 9c of TB ORD 303, like so:

Elevate and depress the gun and mount throughout the FULL operating range at least three or four times. Got it?



And now, Sarge, you diagnose this one for me: Why is it that because the TB ORD says in Para 15 that the equilibrator's supposed to be exercised at least once every six months so many guys interpret this to mean it can't be exercised any oftener than that?

Maybe what we need are signs for people who can't read!

Half-Mast

IT'S THIS WAY, DOC. LATELY, MY RETICLE MARKINGS SEEM TO BE MOVING... COULD BE A CARROT DEFICIENCY?

THE NEW BREED

MEDIC ROBOT

NEGATIVE! OL' BEAN YOU ARE AFFLICTED WITH... PARALLAX... NOT ANTHRAX... SO FIND A REPAIRMAN WITH WARM HANDS AND A SUITABLE SCREWDRIVER.

Next time you boresight the M31 periscope on your M48A3 or M60 tank, check the 'scope to see if it's suffering from parallax. And if it is, fix it yourself, using a suitable screwdriver.

What's that? Y'say you have strict orders to keep your cotton-picking screw-driving mitts off'n all periscopes? You've had it hammered into you that parallax adjustment can only be done internally at higher echelon?

Well, you're right—as far as other periscopes go.

But the M31's different. It's equipped with a slot in the eccentric shaft that allows for this external adjustment. And there'll be a whole new breed of periscopes in the future with this same feature.

So, you might as well get hep to it right now.

Here's how to make that check: Set the diopter scale at the sharpest focus position of the periscope reticle within plus or minus 0.25 diopter.

Then squint through the eyepiece at some target in the distance—say, 1200 meters—and move your head up and down and sideways. If the reticle markings of the target seem to move, don't blame it on last night—your 'scope's got parallax.

HERE'S HOW YOU FIX IT:

LOOSEN LOCKING SCREW

ADJUST WITH SCREWDRIVER... LOCK LOCKING SCREW

PERISCOPE
MIN

Loosen the locking screw in the eccentric shaft housing and while you're peering into the eyepiece, stick your screwdriver into the slot in the eccentric shaft and turn it till you get rid of the parallax. Then tighten the locking screw.

+ OR 0.25

... IF THEY MOVE...

... THERE'S PARALLAX

Normally parallax's no problem on M31 periscopes. About the only time you may have trouble with it is when you replace an unserviceable head assembly. But check it whenever you're boresighting.

This is the big message to write in red ink behind your ear, though: While you're authorized by Change 1 (May 63) to TM 9-2350-215-10 to screw around with the M31 periscope parallax adjustment, don't get caught dead with a screwdriver around any of the other periscopes now in the field.



LOOKY HERE!



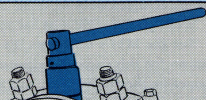
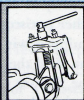
Can't do a good PM job on your M107 or M110's armament without the right tools, y'say?

AH SO! BUT STOW THE GRIPE
TILL YOU SEE THESE FIVE BRIGHT
NEW ADDITIONS TO YOUR BASIC
ISSUE ITEMS LIST:



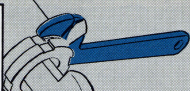
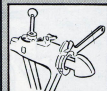
A SOCKET WRENCH FOR ADJUSTING EQUILIBRATORS.

(Socket, socket wrench, $\frac{3}{4}$ -in square
drive, $\frac{3}{4}$ -in square wrench size . . . FSN
5120-969-1773.)



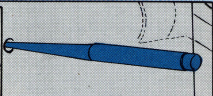
A SPANNER WRENCH FOR ADJUSTING THE TRAVEL LOCK.

(Wrench, spanner, adjustable hook
(2 to $4\frac{3}{4}$ -in) MS16147-3 . . . FSN 5120-
277-9076.)

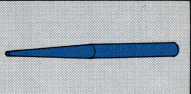
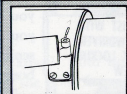


AND THREE DRIVE PIN PUNCHES FOR DISASSEMBLING THE BREECH.

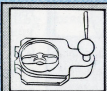
(Punch, drive pin, $\frac{3}{16}$ -in diameter,
 $3\frac{1}{2}$ -in point length . . . FSN 5120-223-
1015.)



(Punch, drive pin, $\frac{5}{32}$ -in diameter,
2-in point length . . . FSN 5120-752-
9031.)



(Punch, drive pin, $\frac{1}{16}$ -in diameter,
 $1\frac{1}{2}$ -in point length . . . FSN 5120-752-
9030.)



Use 'em in good health—yours
and your vehicle's.

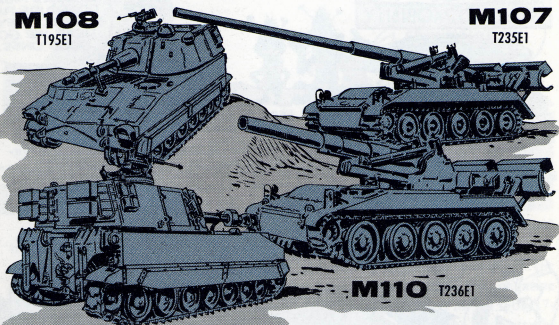
SHOOT AND SCOOT POOP

M108

T195E1

M107

T235E1



M109 T196E1

M110 T236E1

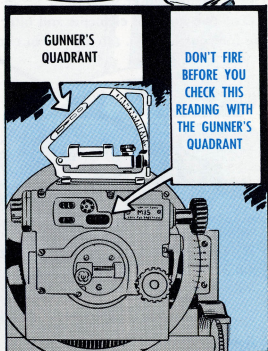
HAVE YOU GOT ONE OF THE NEW
M107, M108, M109, OR M110 SP ARTILLERY
VEHICLES?



Well, listen to this warning and you won't be mourning . . . Elevation quadrants M15 with serial numbers under 1000 don't always give an accurate reading on the elevation counter dial.

So, before you fire, be sure the reading is right by checking it with gunner's quadrant M1 or M1A1 . . . that way your round will go where you want it to instead of somewhere in the next county.

M15 elevation quadrants with serial numbers above 1000 are OK. But if you have one numbered below 1000 always check it with the gunner's quadrant . . . This won't be forever because they plan to fix the bad counters. But, for now, check before you fire.



GUNNER'S
QUADRANT

DON'T FIRE
BEFORE YOU
CHECK THIS
READING WITH
THE GUNNER'S
QUADRANT



M107-M110 FILTER FACTS

M107 SP 175-mm gun and the M110 8-in howitzer are a couple of far-geshoot-in', loud-geboomen, krieg-cannon. Be good to them and they'll write bad news for the bad guys.

Treat 'em tender, never bend a fender . . . and always remember, fuel filters help keep your cannon crackin'.



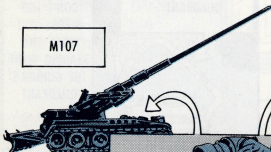
DON'T SWEAT OR FRET. JUST PICK UP A PENCIL AND JOT DOWN THESE FOUR FSN'S...

FSN 2940-745-7734—primary filter (low pressure) assembly.
FSN 2940-745-7730—primary filter (low pressure) element only.
FSN 4330-785-3852—secondary filter (high pressure) assembly.
FSN 4330-785-3851—secondary filter (high pressure) element.

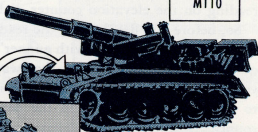
You might clip this info to page 19 of your TM 9-2300-216-20P (Jul 62) where some of it already is. Incidentally, the Fig 12 on page 18 is of a primary (low pressure) filter.

The two kinds of elements and filter assemblies are sittin' in the depots waitin' for your order . . . so use 'em but don't lose 'em or abuse 'em.

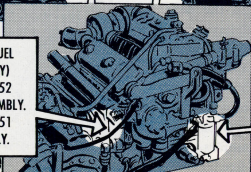
M107



M110

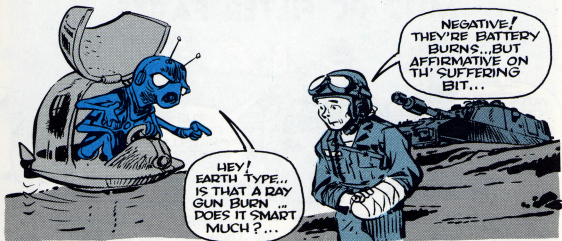


HIGH PRESSURE FUEL
FILTER (SECONDARY)
FSN 4330-785-3852
FOR WHOLE ASSEMBLY.
FSN 4330-785-3851
FOR ELEMENT ONLY.



LOW PRESSURE FUEL
FILTER (PRIMARY)
FSN 2940-745-7734
FOR WHOLE ASSEMBLY.
FSN 2940-745-7730
FOR ELEMENT ONLY.

M108-M109 SP TIP



You ready to disconnect the batteries on your M108 SP 105-mm howitzer (T195E1) or your M109 SP 155-mm howitzer (T196E1)?

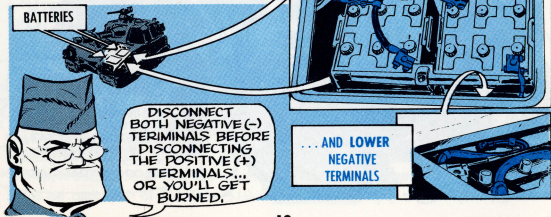
They're negative ground like on all modern Army vehicles, and they'll give you no trouble . . . provided you remember that they go to ground in two places. When you're disconnecting the batteries, you disconnect the two—count 'em . . . two—negative (ground) cables first.

Disconnecting just one ground won't protect you—and some soldiers have battery burns to prove it.

So-o-o-o, never try to disconnect the positive (+) terminals before you have both negative (-) terminals disconnected.

That way you'll be all right and so'll your batteries.

Likewise, when you reconnect the batteries, you connect the negative (ground) cables last. TM 9-2350-217-20 (Oct 62) shows you the cable attachments in Fig 163 on page 251.



M113 PC FILTER FACTS



You can't tell the players without a score card . . . so this is your score card for the M113 PC transmission oil filters.

Maybe you wouldn't know an E.O. from the backside of a barn door—mox nix—it was E.O. 80671 (15 May 61) that changed transmission assembly TX200-2, OPN 8763102, to a new model which was named TX200-2A, OPN 10910292.

This was fine and dandy like chocolate candy except that transmission oil filter parts kit FSN 2510-767-3155

listed on page 91 of TM 9-2300-224-20P (Nov 61) will not work on the new TX200-2A transmissions.

What you need is transmission oil filter parts kit FSN 2520-860-7343 which has parts to fit either TX200-2 or TX200-2A transmissions. This kit is in the supply system so order it if you need it.

The late model M113 PC's have the new TX200-2A transmissions and so do their satellite vehicles such as the XM106, XM474E2, XM577, etc.





There may be one in your outfit!
One what?

A point scrounger, that's what.

You know the type. He needs a set of points for the distributor in a vehicle and, with supply fresh out, he takes a short cut.

After all, direct exchange is right handy. They have rebuilt distributors with new points in 'em. And what could be easier than swapping points? Why, he doesn't even need a requisition.

'Course this type of action is guaranteed to turn a few hairs gray at the depot, when the rebuilt distributor comes back for a second overhaul, as well as in his own outfit.

Remember that if supply is always running out of ignition distributor part kits (points included), the unit property officer needs to know about it, for a very good reason.

Most part manuals say that an increase in the quantity of an item is OK if it's justified by usage and experience. AR 735-35 (16 Mar 62), "Property Accountability," gives him the green light to increase stockage.

So, if you notice a run on rebuilt distributors, spread the word, will ya?

THE ONLY WAY TO BE SURE THERE'RE ENOUGH OF THE RIGHT PARTS ON-HAND TOMORROW IS TO MAKE WITH A REQUISITION THROUGH SUPPLY CHANNELS, TODAY.



IT'S 21...

IF YOU GUYS ARE SO ADVANCED HOW COME Y' DIDN'T FIGURE THIS MIS-PRINT ON PAGE 209 OF DA PAM 310-4?



Y'R EARTH HUMOR SOME-TIMES ELUDES ME...

Yep, it's still TM 21-305 for wheeled vehicle driver know-how. The TM 1-305 listed on page 209 of DA Pam 310-4 (Jul 63) is simply shy its first digit.

BUTTON! BUTTON! WHO'S GOT...?



Button! Button! Which truck has the rubber button on its starter pedal?

Is it the M38A1 1/4-ton?

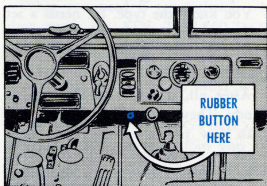
No! No! No! No!

Is it the M37 and M37B1 3/4-ton?

Yes! Yes! Yes! Yes!

If you look in TM 9-2320-212-20P (Feb 60), the supply bible for the M37, you won't find anything about the rubber starter pedal button. However, it is in the supply system now under FSN 2920-562-0417 (Ord No. 7351198) and you can order it.

Use it just on the M37 and M37B1. You don't need it on the M38A1.



LEAVE THEM OFF

Dear Half-Mast,

Can you tell me why the M105A1 and M105A2 cargo trailers don't have amber side reflectors?

There's talk going around my outfit that unless a good answer can be found somebody's going to latch on to 'em . . . drill some holes in the trailers . . . and then mount the reflectors.

SFC N. R.

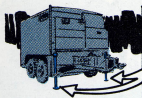
Dear Sergeant N. R.,

Those amber side reflectors were left off the trailers because of a problem we all have now and again: money.

And I sure would do some fast talking to keep the people in your unit from getting eager with the drill.

THERE'S NO AUTHORIZATION FOR PUTTING ON THE REFLECTORS - PERIOD.





LEVELING JACKS

Dear Half-Mast,

We've looked high and low for the FSN or any other number for the leveling jacks on the doppler station van trailer M324 and computer station van trailer M325. They just don't seem to be listed anywhere.

Can you give us a number for the whole assemblies?

CWO A. I. B.

Dear Mister A. I. B.,

Sure can.

The leveling jacks that you're looking for are listed on page 25 of Ord 7 & 8, SNL G221 (May 52).

Of course, the SNL gives the old Ordnance stock number for the jacks. But when you take these Ordnance numbers and add the federal group and class numbers, you then have the jacks' correct stock numbers.

HERE'S HOW THE JACKS STACK UP WITH THEIR FSN'S:



JACK, leveling, left, assy (G221-7068425), FSN 2590-706-8425.
JACK, leveling, right, assy (G221-7068426), FSN 2590-706-8426.

Half-Mast

M56 SCORPION SCOOP

SCORPION'S
TEETH... MAN,
ARE YOU WAY
DOWN ON THE
EVOLUTION SCALE.



HOW MANY TIMES
DO I HAVE TO
TELL YOU...
THEY ARE MACHINES!!

If you can't control the steering in your M56 Scorpion (SPAT) you can get killed—as one man has been already.

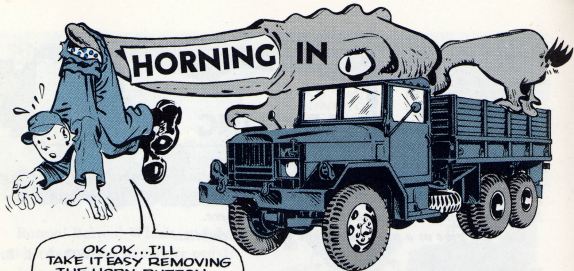
What happened, the sprocket mounting bolt heads got sheared off because the track guide pins were rubbing against them. With the bolt heads gone, the drive shaft backed off and steering control was lost.

To prevent this, put on new sprockets if yours get worn down so much the

track guide pins rub the mounting bolts.

Also, don't drive if there's a chunk out of a sprocket tooth so deep that bare metal is exposed.

Another thing you can do for safety—your safety—is replace the selflocking sprocket mounting bolts with safety-wired bolts — FSN 5306-967-9576. Wire 'em in series of two with FSN 9505-331-2607 safety wire.



OK, OK...I'LL
TAKE IT EASY REMOVING
THE HORN BUTTON
ASSEMBLY...GET ME
OFF THIS THING.

Is this what you do when you want to remove the horn button assembly on your 2½-ton Reo, 5-ton or 10-ton truck?

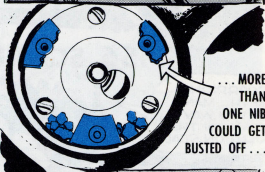
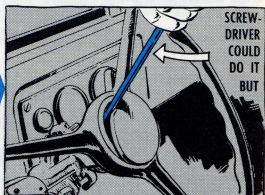
No wonder the supply people are climbing up the wall—what with the requisitions they're getting for the assemblies.

You can get the horn apart with the screwdriver. But the chances are better'n even that you'll bust one or more of the rubber nibs on the horn plate in the process.

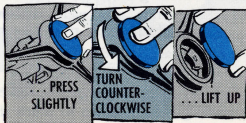
You can see why. The horn button has three lugs made of hard plastic. And these lugs engage the nibs to keep the button in place. So . . . prying up the horn button means the lugs tear the nibs from here to there and gone.

There's only one right way to remove the button. Take hold of the rubber covering . . . press down slightly to take the pressure off the mated nibs and lugs . . . turn counterclockwise about one inch . . . and then lift up.

You work things in reverse to replace the button.



HORN BUTTON
HAS THREE
LUGS THAT
ENGAGE
NIBS—SO ...



... PRESS
SLIGHTLY

TURN
COUNTER-
CLOCKWISE

... LIFT UP

WHY DO IT?

...AND YOU...
EARTH-TYPE, ARE
GONNA CLEAN WITH
DIESEL FUEL? EVEN
WE DON'T DO THAT.



GRRR...
I HATE THESE
GUYS WHO KIN
READ Y'R MIND.



That's right! Why do it?

There are plenty good reasons why diesel fuel should not be used for cleaning vehicles.

First, it's a monstrous waste of fuel and money.

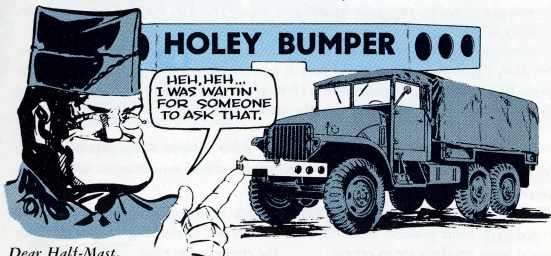
It'll cause the paint to break down. Pin-holes develop where rust can get a foothold. And rust will break down

your paint job even worse.

It leaves an oily film on the paint that'll only gather more dust to make it harder to keep your vehicle clean.

A vehicle cleaned with diesel fuel may look slick for an hour or so, but that spit-and-polish won't fool a good inspector one bit.

So why do it?



Dear Half-Mast,

Why are there holes in the front bumper of the M135 trucks?

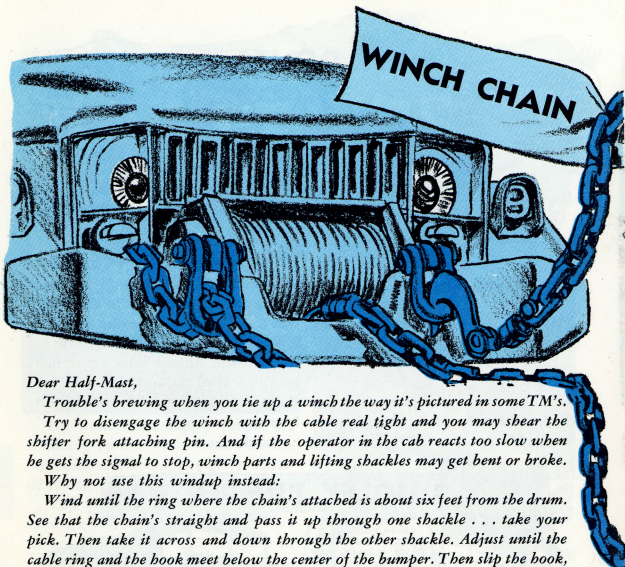
S Sgt T. H.

Dear Sergeant T. H.,

You're not the only one that's been puzzled by those holes in the front bumper. Those holes have led to all sorts of theories.

The truth of the matter is, it was one of several ways the designer used to reduce the overall vehicle weight without sacrificing structural stability.

Half-Mast



Dear Half-Mast,

Trouble's brewing when you tie up a winch the way it's pictured in some TM's.

Try to disengage the winch with the cable real tight and you may shear the shifter fork attaching pin. And if the operator in the cab reacts too slow when he gets the signal to stop, winch parts and lifting shackles may get bent or broke.

Why not use this windup instead:

Wind until the ring where the chain's attached is about six feet from the drum. See that the chain's straight and pass it up through one shackle . . . take your pick. Then take it across and down through the other shackle. Adjust until the cable ring and the hook meet below the center of the bumper. Then slip the hook, point down, through the ring.

Wind the cable to take up slack but don't draw it tight. Disengage the winch drive and set the drum lock pin. Result: No sweat and no damage.

Dear M. E. L.,

M. E. L.

With the windup you described, you'd duck some possible troubles, but you'd open up the gate to others.

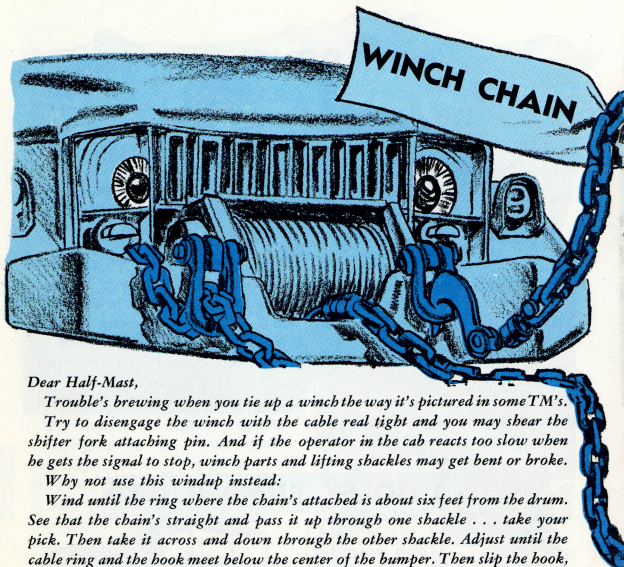
Many of the chains you'll find in use are too short to make that long loop through both shackles. So sometimes you'd have to put the shackle over the cable instead of just threading the chain through.

With the hook and chain in a loose loop below the bumper, the hook will

bounce in rough country. And it may bounce out of the ring unless you wire the chain to the ring.

Besides, with that loose loop, the outer layer of the cable on the winch drum is likely to get crossed up.

And you'd have to make sure that loop stayed draped inside the bumper. Page 324 of DA Pam 750-1 (28 Apr 58) says "no dice" on dropping it over the bumper face.



Dear Half-Mast,

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Try to disengage the winch with the cable real tight and you may shear the shifter fork attaching pin. And if the operator in the cab reacts too slow when he gets the signal to stop, winch parts and lifting shackles may get bent or broke.

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Dear M. E. L.,

With the windup you described, bounce in rough country. And it may bounce out of the ring unless you wire the chain to the ring.

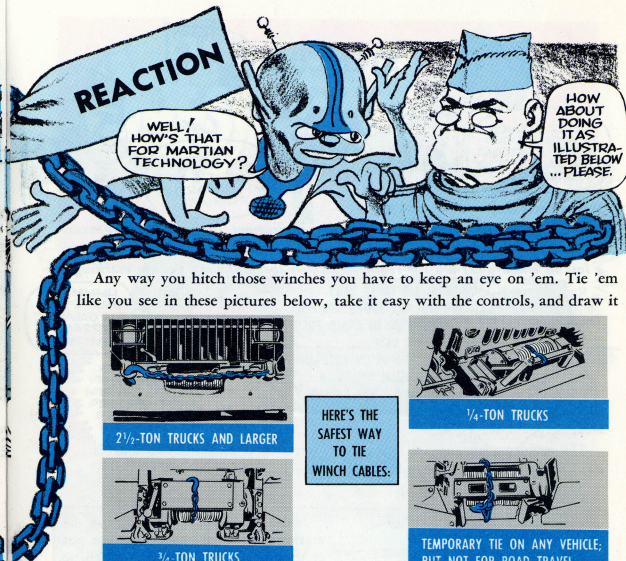
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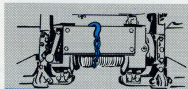
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Any way you hitch those winches you have to keep an eye on 'em. Tie 'em like you see in these pictures below, take it easy with the controls, and draw it



2 1/2-TON TRUCKS AND LARGER



1/4-TON TRUCKS

HERE'S THE SAFEST WAY TO TIE WINCH CABLES:



1/4-TON TRUCKS



TEMPORARY TIE ON ANY VEHICLE; BUT NOT FOR ROAD TRAVEL

just tight enough to hold the hook in place. That way your troubles won't follow you down the road . . . or 'round the boondocks.

Half-Mast



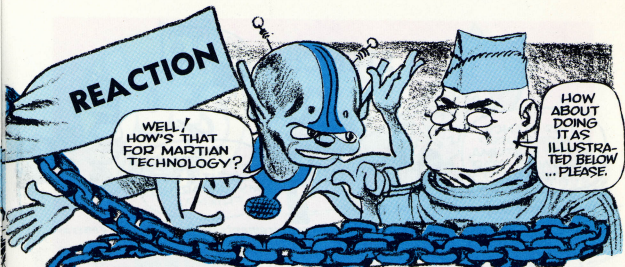
M56 SPAT LUBING



Any of you M56 SPAT "owners" still shook up about lubing the eccentric worm gear?

Note 11 in the LO 9-2350-213-12 (Jun 63) says one thing and Change 3 (Feb 61) to TM 9-2350-213-10 (May 58) says another. The engineers in Detroit remind us that para 5 of Change 3 is right. It says, "Every 250 miles or quarterly, apply grease through fittings until grease is forced out around seals."

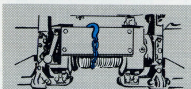
These fittings are about an inch back of each idler worm bolt, and they're a little hard to get to.



Any way you hitch those winches you have to keep an eye on 'em. Tie 'em like you see in these pictures below, take it easy with the controls, and draw it



2½-TON TRUCKS AND LARGER



¾-TON TRUCKS

HERE'S THE
SAFEST WAY
TO TIE
WINCH CABLES:



¼-TON TRUCKS



TEMPORARY TIE ON ANY VEHICLE;
BUT NOT FOR ROAD TRAVEL

just tight enough to hold the hook in place. That way your troubles won't follow you down the road . . . or 'round the boondocks.

Half-Mast



M56 SPAT LUBING



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These fittings are about an inch back of each idler worm bolt, and they're a little hard to get to.

STENCILS



THIS STENCIL IS WIDELY USED IN THE PROXIMA CENTAURI STAR SYSTEM!!



WELL, NOT AROUND HERE IT'S NOT, MY UNEARTHLY FRIEND...

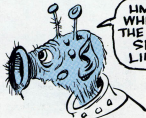


Dear Half-Mast,

I've been flooded with questions on the requirements for markings on general purpose vehicles. After digging thru numerous publications, I find myself at a loss to know what are the requirements on the following vehicle markings:



DRAIN AIR TANKS DAILY
DO NOT FILL ABOVE THIS LINE
SECURE HOOD IN RAISED POSITION
REFUELING RATE _____ GPM
NO "U" TURNS ON AUTOBAHN
GERMAN LEGAL SPEEDS
NO SMOKING WHILE DRIVING



HMMM... WHERE'RE THE GALACTIC SPEED LIMITS?

MSgt W. T. M.

Dear Sergeant W. T. M.,

The requirements you are looking for derive their use from two sources . . . local SOP, and Department of the Army directive type publications.

This is the way they size up.

DRAIN AIR TANKS DAILY

If the vehicles in your unit have the markings on them, then they got put on thru local SOP directive. Any vehicle with air or air/hydraulic brakes are directed to do this chore in their vehicle TM.

DO NOT FILL ABOVE THIS LINE

TB Ord 626 (1 Oct 57), is the directive you need.

SECURE HOOD IN RAISED POSITION

You'll find the poop on this in TB Ord 1058 (14 Jun 63).

REFUELING RATE _____ GPM

Your directive would be TB Ord 2300-10/1 (Apr 58, W/Ch 1, Sep 59).

NO "U" TURNS ON THE AUTOBAHN
GERMAN LEGAL SPEEDS
NO SMOKING WHILE DRIVING

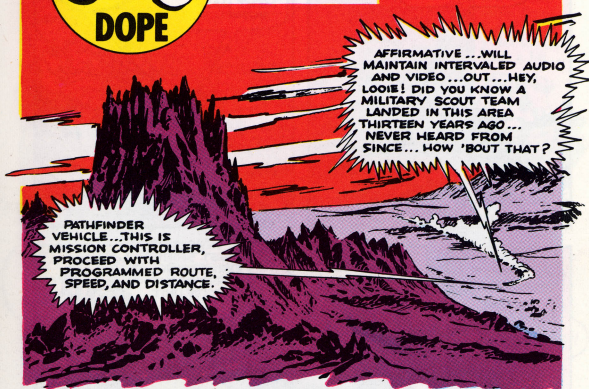
These three are local command SOP's . . . no Army-wide directives exist on them.

So there's the full scoop.

Half-Mast



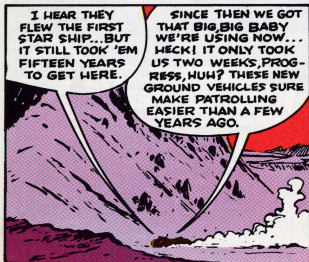
DON'T PASS
TH' "BUCK",
ROGERS!
OR ...
PM IN THE
25th CENTURY



AFFIRMATIVE ...WILL
MAINTAIN INTERVALED AUDIO
AND VIDEO ...OUT ...HEY,
LOOIE! DID YOU KNOW A
MILITARY SCOUT TEAM
LANDED IN THIS AREA
THIRTEEN YEARS AGO ...
NEVER HEARD FROM
SINCE ... HOW 'BOUT THAT?

PATHFINDER
VEHICLE...THIS IS
MISSION CONTROLLER,
PROCEED WITH
PROGRAMMED ROUTE,
SPEED, AND DISTANCE.

You are looking at a ground patrol vehicle exploring the far side of a distant planet . . . amazing, isn't it . . . but, don't be shocked . . . hang on to y'r socks . . . you're now in the "skylite zone!!"



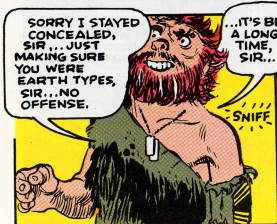
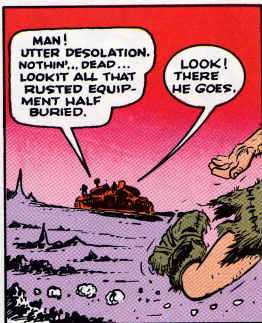
I HEAR THEY
FLEW THE FIRST
STAR SHIP...BUT
IT STILL TOOK 'EM
FIFTEEN YEARS
TO GET HERE.

SINCE THEN WE GOT
THAT BIG,BIG BABY
WE'RE USING NOW...
HECK! IT ONLY TOOK
US TWO WEEKS,PROG-
RESS,HUH? THESE NEW
GROUND VEHICLES SURE
MAKE PATROLLING
EASIER THAN A FEW
YEARS AGO.



WONDER WOT HAPPENED
TO THE GUYS WHO
LANDED HERE??

WE'LL SOON KNOW...
'CAUSE WE'RE CLOSE
TO WHERE THEY WERE
LAST HEARD FROM.



And so, after a real meal, a shower, shave and a change of clothes, Sgt. Zerkfitting spews out his almost unbelievable, thirteen year old report!!



Y'SEE, I WAS, 'N' PROBABLY STILL AM, MAINTENANCE SGT., SO WHEN WE LANDED...

WELL, SGT.... WE'RE HERE... OUR MISSION WILL LAST FIVE YEARS, SO...IT'S IMPERATIVE YOU HAVE A TIGHT FITTING MAINTENANCE PROGRAM SET UP TO LAST...GOT THAT!

YESSIR! I'VE CLUED 'EM IN, SIR... TWO' CLIMATIC CONDITIONS HERE WILL MAKE SLIGHT CHANGES IN OUR SERVICING, SIR.

So things went along "five by five," but when y'r a few billion miles from home... y' let things slide a bit...



... like the day the geological unit needed wheels to haul back samples ...

HEY, SARGE! THEM "ROCK TYPES" NEED A HEAVY LOADING VEHICLE FOR SAMPLE TRANSFER...

NEGATIVE! NOTHING'S ON TH' LINE, THO' WE COULD USE A LIGHT "RECON" WITH A TRAILER... HMMM, I DON'T KNOW IF WE SHOULD... HMMM...

OK! LET 'EM HAVE IT... BUT EASY ON SPEED. THAT "RECON" WAS NOT DESIGNED AS A HEAVY PRIME MOVER.

Wot an eight ball I was ... next morning we started to feel th' fickle finger ...

SARGE! THE ROCK BOYS ARE BACK, 'N' WE GOT TROUBLE!!



@*%!! WOT HAPPENED? LOOKIT THAT LOAD... THAT VEHICLE CAN'T TAKE THAT!!

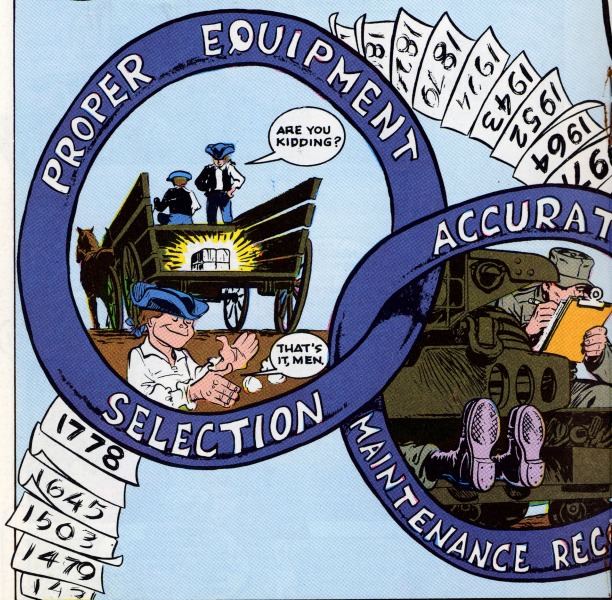
YOU SAID IT, SARGE, BABY... HER ENTIRE ENERGY CONVERTER'S HAD IT... WOTTA MESS!!



Yessir, we were on our way ...

Joe's

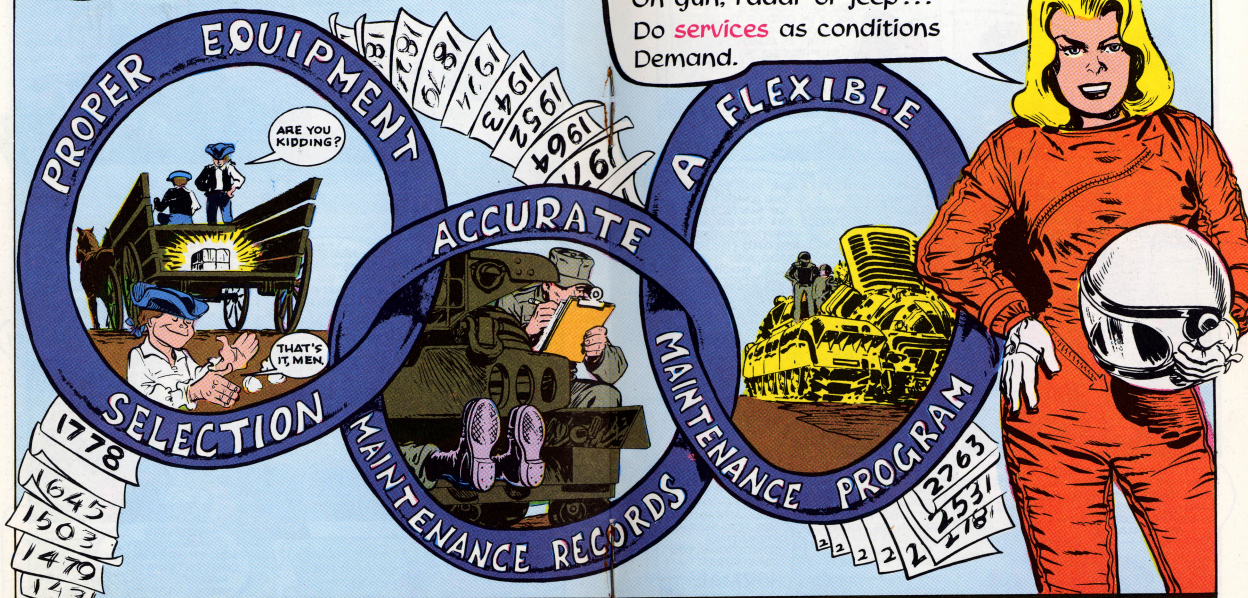
Dope Sheet



WE HAVE THE WORLD'S BEST EQUIPMENT

IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BU

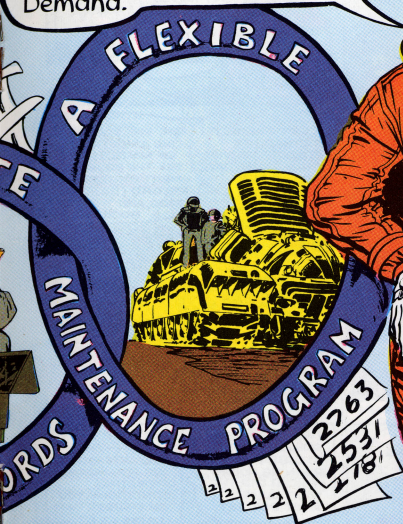
Joe's Dope Sheet



WE HAVE THE WORLD'S BEST EQUIPMENT ...*Take care of it*

IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.

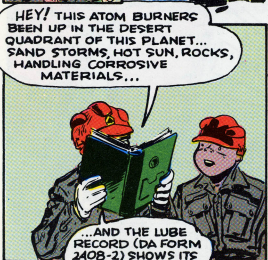
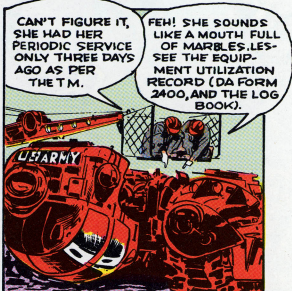
In a top-notch maintenance plan
You **use** right... the best that you can.
Accurate **records** you keep
On gun, radar or jeep...
Do **services** as conditions
Demand.

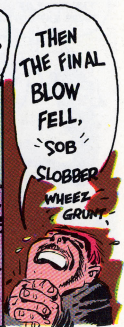
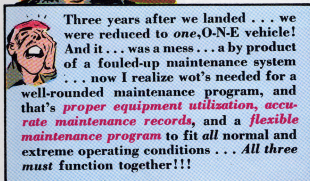
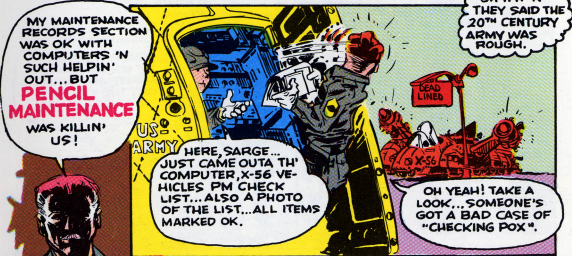
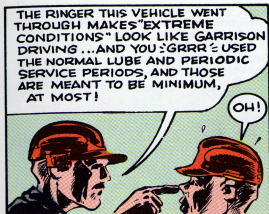


EQUIPMENT ... *Take care of it*

BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.

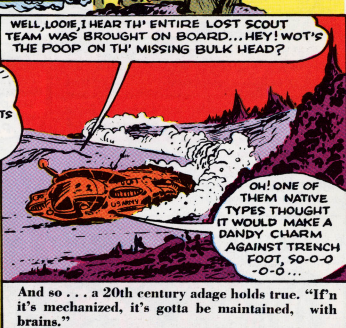
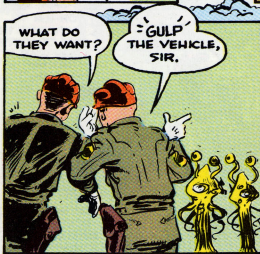
The next mistake was to cover th' first one . . . and so we started to . . .







One hour later, the meeting took place and ...



Next week on "skylite zone" . . . the CMMI inspectors from planet "X".

We now return control of your PS Magazine to you . . .

MORE EQUIPMENT SERVICEABILITY CRITERIA PUBS

Here's an addition to the ESC Pubs you saw listed last month in PS 138. You'll also find the complete list in DA Circular 750-1 dated 12 Mar 64, and as it says in the circular—ESC Pubs will go in your log book.

TM 11-283-ESC, AN/VRC-6, Radio Set.
TM 11-285-ESC, AN/VRC-7, Radio Set.
TM 11-286-ESC, AN/VRC-8, -9, and -10, Radio Sets.
TM 11-287-ESC, AN/VRC-1, -2, and -3, Radio Sets.
TM 11-291-ESC, AN/VRC-13, and -15, Radio Sets.
TM 11-296-ESC, AN/PRC-6, Radio Set.
TM 11-510-ESC, AN/URC-4, Radio Set.
TM 11-611-ESC, AN/VRC-16, -17, and -18, Radio Sets.
TM 11-642-ESC, AN/VRC-20, and -21, Radio Sets.
TM 11-706-ESC, AN/VIA-4, Intercommunication Station.
TM 11-2139-ESC, AN/TCC-7, and -50, Telephone Terminals.
TM 11-2142-ESC, AN/TCC-3, and -23, Telephone Terminals.
TM 11-2258-ESC, AN/TXC-1, -1A, -1B, -1C, -1D, Facsimile Sets.
TM 11-2436-ESC, AN/TMQ-5, Radiosonde Recorder.
TM 11-2643-ESC, AN/UIC-1, Intercommunication Set.

TM 11-5805-246-ESC, TH-5/TG, Telegraph Terminal.
TM 11-5805-247-ESC, TA-182/U, Telegraph-Telephone Signal Converter.
TM 11-5805-254-ESC, AN/TCC-14, Telegraph-Telephone Terminal.
TM 11-5820-222-ESC, AN/VRC-24, Radio Set.
TM 11-5820-292-ESC, AN/PRC-8, -9, -10, Radio Sets.
TM 11-5820-401-ESC/1, AN/VRC-12, Radio Set.
TM 11-5820-401-ESC/2, AN/VRC-46, Radio Set.
TM 11-5820-498-ESC, AN/VRC-53, Radio Set.
TM 11-5840-217-ESC, AN/TPS-25, Radar Set.
TM 11-5840-229-ESC, AN/TPS-21 and -33, Radar Sets.
TM 11-5895-204-ESC, AN/TNS-3, (GR-6-A), Sound Ranging Set.
TM 11-5895-336-ESC, AN/TRR-15, Radio Receiving Set, and AN/TAQ-1, Infrared Surveillance.
TM 11-6115-204-ESC, PU-286A/G, and PU-286B/G, Generator Sets.
TM 11-6740-200-ESC, AN/TFQ-7, -7A, Laboratory Darkrooms and OA-419B/TFQ-7, OA-419V/TFQ-7, Photo Darkroom Groups.
TM 11-10H-23C-ESC, OH-23B, OH-23C.
TM 55-1510-201-ESC, U-8D, RU-8D, F.
TM 55-1510-202-ESC, U-8A, U-1E.

TM 55-1510-203-ESC, U-6A.
TM 55-1510-204-ESC, OV-1A, OV-1B, OV-1C.
TM 55-1510-205-ESC, U-1A.
TM 55-1510-206-ESC, CV-2A, CV-2B.
TM 55-1520-201-ESC, UH-19.
TM 55-1520-202-ESC, CH-34A, CH-34C.
TM 55-1520-203-ESC, CH-37A, CH-37B.
TM 55-1520-204-ESC, OH-13E, OH-13G, OH-13H, OH-13K.
TM 55-1520-205-ESC, CH-21.
TM 55-1520-206-ESC, OH-23D.
TM 55-1520-209-ESC, CH-47.
TM 55-1520-210-ESC, UH-1D.
TM 55-1520-211-ESC, UH-1A, UH-1B.
TM 55-1550-200-ESC, USD-1.

AIRCRAFT ELECTRONIC EQUIPMENT

TM 11-1510-201-ESC/1, U-8D.
TM 11-1510-201-ESC/2, RU-8D.
TM 11-1510-202-ESC, O-1A, O-1E.
TM 11-1510-203-ESC, U-6.
TM 11-1510-204-ESC, OV-1.
TM 11-1510-205-ESC, U-1A.
TM 11-1510-206-ESC, CV-2.
TM 11-1520-201-ESC, UH-19.
TM 11-1520-202-ESC, CH-34.
TM 11-1520-203-ESC, CH-37.
TM 11-1520-204-ESC, OH-13.
TM 11-1520-205-ESC, CH-21.
TM 11-1520-206-ESC, OH-23.
TM 11-1520-209-ESC, CH-47.
TM 11-1520-207-ESC, UH-1.

A selected list of recent publications of interest to Organizational Maintenance Personnel. This is a list compiled from recent Adjutant General's Distribution Center Bulletins. For complete details see DA Pam 310-4 with latest changes.

TECHNICAL MANUALS

TM 1-1L-23D-1016, C1, Feb 1-23D.
TM 3-1040-215-12, Dec Irritant Gas Dispersers M4.
TM 5-1090-201-15, Jan Metascope, Infrared, Polon Model P-141.
TM 5-1450-200-20, Jan Nike-Herc.
TM 5-2815-200-20P, Jan Diesel Engine, GM Series 71.
TM 5-3431-206-15, Jan Welding Machine, Arc: Libby LJ-200.
TM 5-3431-214-15, Jan Welding Machine, Arc: Libby LEW-300.
TM 5-3805-207-20P, Jan Loader, Scoop Clark 85A-M and M23.
TM 5-3805-216-20P, Jan Machine, Gar Wood Ditching M-407.
TM 5-3805-219-20P, Jan Loader, Scoop, Hough H-90M.
TM 5-3810-203-20P, Jan Crane Shovel, Gar Wood M-20A (F) + M-20B.
TM 5-3810-206-20, Jan Crane Shovel, Basic Unit, Harnishfeger 855 BG.
TM 5-3820-200-10, Dec Earth Anger, Jaques TJ 254.
TM 5-3820-205-10, Jan Crusher Eagle 5157.
TM 5-3820-205-10/2, Jan Crusher, Jaw, Eagle 5157.
TM 5-4310-227-15, Jan Compressor, 15 CFM, Champion OEG-458-ENG 1.
TM 5-6115-282-25P, Jan Generator Set, Hollingsworth JHWG3C.

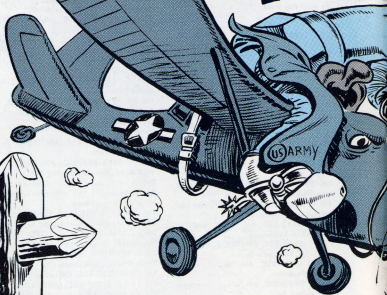
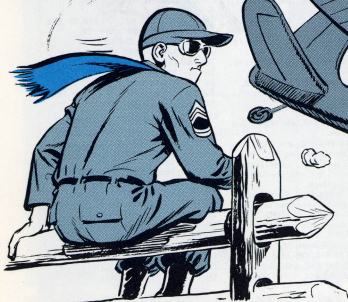
TM 9-1005-208-12P, Jan Caliber .30, Browning M1918A2.
TM 9-1005-210-12P, Sep (Corrected Copy) Caliber .30, M1 and M2.
TM 9-1005-213-12P, Jan Machine Gun, Caliber .50:M2, M3, and M63.
TM 9-1005-247-12, Jan Armament Helicopter, 7.62mm Machine Gun: Twin, M2.
TM 9-1100-250-20P, Feb Wpn Sys, Nike-Hercules.
TM 9-1220-221-20/2, Jan M18 Computer, Gun Direction.
TM 9-1440-375-10/2/1, 10/2/2, Feb Pershing, Ammo, Ground Handling, etc.
TM 9-1400-376-12P/1, Feb Pershing, Ground Handling, Spt & Svc Equip.
TM 9-1430-375-12, Jan Pershing.
TM 9-1440-375-12, Jan Pershing, Ground Handling.
TM 9-1450-375-12P/1, Jan Pershing, Ground Handling.
TM 9-1450-375-14, Jan Pershing, Ground Handling, Spt & Svc Equip.
TM 9-2320-218-20P, Dec Truck 1/4-Ton M151.
TM 10-500, Feb Airdrop, Supplies & Equipment.
TM 10-500-13-2, Feb Rigging M101, 1/4-Ton.
TM 10-500-62, C1, Feb Rigging Whale Blood.
TM 10-500-88-3, Feb Rigging Plastic 16-ft oval boat.
TM 10-1670-219-23, Jan Parachute, Personnel Troop Back and Chest (Maneuverable).
TM 10-3930-224-20P, Feb Truck, Lift, Fork, MHE 166.
TM 10-3930-232-10, Jan Truck, Lift, Fork, MHE 183.

TM 10-3930-241-20, Jan Truck, Lift, Fork, MHE 179.
TM 10-3930-405-20P, Jan (Prorated ID) Tractor, Warehouse, MHE 168.
TM 10-3930-252-12, Dec Truck, Lift, Fork, MHE 185.
TM 10-3930-253-12, Jan Truck, Lift, Fork, MHE 186.
TM 10-3930-231-10, Jan Truck, Lift, Fork, MHE 184.
TM 10-3950-202-20P, Jan Crane, Truck, Warehouse, MHE 137.
TM 10-4520-201-10, Jan Heaters, Dual-type, Gasoline 250,000 B.T.U.
TM 10-8340-208-23P, Feb Tent, Vehicle Maintenance.
TM 11-5805-246-20P, Jan Converter, Telegraph-Telephone Signal, TA-182/U.
TM 11-5805-334-15, Jan Panels, Circuit Termination SB-1525/Ft and SB-1526/Ft.
TM 11-5805-336-15, Jan Panels, Relay Telegraph SB-1529/FG and SB-1530/FG.
TM 11-5805-346-15P, Jan Switch Key and Lamp Assembly MX-4427/G.
TM 11-5820-406-20P, Feb Control Frequency Selector C-2742/VRC.
TM 11-5820-471-20P, Jan Receiving Set, Radio AN/MRP-48B.
TM 11-5820-505-15, Jan Radio Terminal Set AN/MRC-68A.
TM 11-5830-211-20P, Jan Intercommunication Stations LS-124/FI(*).
TM 11-5895-246-12, CS, Jan USD-1.
TM 11-5930-201-15P, Jan Switchbox SA-331-U.
TM 11-5965-217-12P, Jan Microphone, Dynamic, M-65/U.



IT'S GOOD OLD HOSS SENSE TO ...

PEP UP



More and more outfits are corralling the spark plug servicing kit, pardner. Small wonder, now that the tools for cleaning the massive-type plugs have been added to the kit. TB AVN 25-8 (9 Oct 63) now requires you to put the pep back in all plugs—fine wire and massive alike.

'Course this means that a lot more plug reconditioning (cleaning, gapping, bomb testing) is going to be done. The maintenance manual for your bird, or local SOP, tells you when the plugs get cleaned. It may be during a periodic—or sooner.

CHECK THE PUB

Take the Bird Dog (0-1), TM 55-1510-202-20 (20 Jan 64). The chart in Chapter 2, Section III, page 3-52 says that if the engine runs rough at speeds above idle, all the plugs need to be re-gapped. It figures, what with the gap burning wider all the time.

But say that the plugs were cleaned not long ago, and during a run up

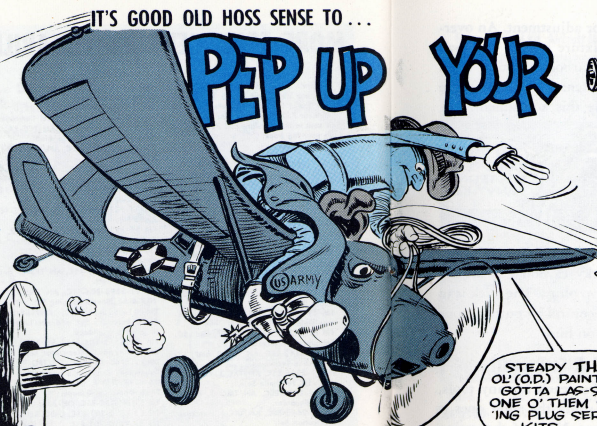
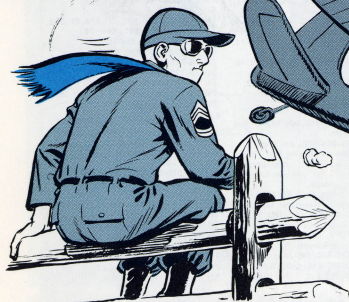


you got a 200-RPM drop on one mag. Naturally you want to recondition only the faulty plug.

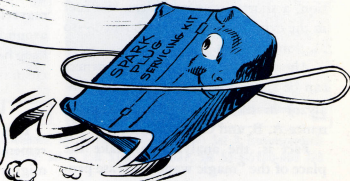
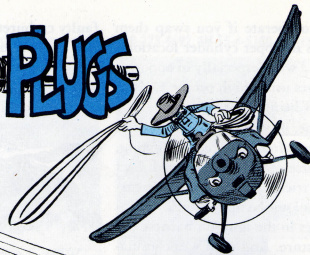


IT'S GOOD OLD HOSS SENSE TO ...

PEP UP YOUR PLUGS



STEADY THAR!
OL' (O.D.) PAINT...
GOTTA LAS-SUE
ONE O' THEM SPARK-
ING PLUG SERVICE
KITS...



More and more outfits are corralling the spark plug servicing kit, pardner.

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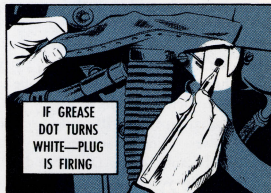


you got a 200-RPM drop on one mag. Naturally you want to recondition only the faulty plug.

To find the cylinder with the bad plug your best bet is the "magic wand", FSN 6625-566-202.

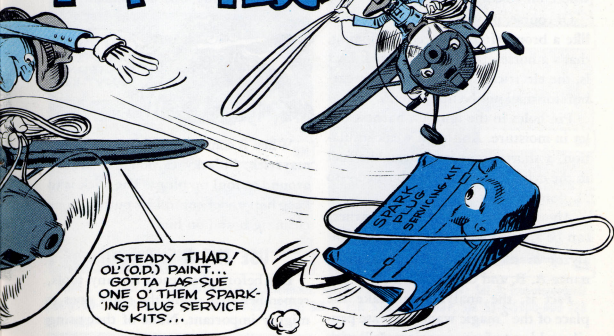
Crank up the bird on both mags. Then switch to the bum mag, run it for a minute or so, and shut 'er down. By checking the cylinders fired by the bum mag you'll be able to spot the one cylinder that's cooler than the others, and not firing.

Another way to locate a bum cylinder, when you're out in the boondocks without the "magic wand", is simply to mark the proper exhaust stacks with a grease pencil before you crank 'er up. The grease dot will turn white if the plug is firing, but won't change if it isn't firing . . . works like a charm.



If you're way out yonder and you've got no good replacement plugs, it's possible to put a fouled spark plug back in operation without putting it through special cleaning. Like this—change it to a cylinder where a plug is working OK. For example, spark plugs that are fouled in lower cylinder positions can

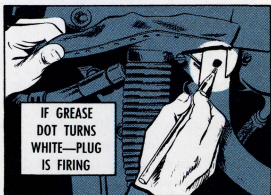
YOUR PLUGS



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be made to operate if you swap them with plugs in upper cylinder locations. This should work especially in opposed-type engines using high octane fuels or where oil's being used fast.

Of course, if your bird keeps buckin' like a bronc after plug reconditioning, that's a horse of a different breed. Fact is, the electrical system, engine, or carburetor may not be up to snuff.

Pin holes in the ignition harness can let in moisture. And with weak insulation, a short circuit can mean the fuel in the cylinder is not being burned—so . . . fouled plugs.

About the only way a faulty harness can be spotted is with the ignition analyzer in the Organizational Maintenance A, B, and C Tool Kits.

Fact is, the analyzer can take the place of the "magic wand," grease pencil, and burnt finger routines. It'll pick up a fouled plug, leaking valve, shorted condenser, shorted ignition harness, or a bum fuel mixture.

But there's a hitch! You'll have to contact your support because their mechs are trained to read the scope.

Then there's the engine itself. With the radial type, oil will tend to stay in the lower cylinders and seep past the rings because of a fast shut-down. That's why you want to idle an engine before shut-down . . . gives the scavenge pump a chance to do its job. Remember, tho, idling an engine below the RPM called for can also foul up the plugs.

'Course if your bird is a thirsty beast and drinks oil like it's going out of style, the engine may be over the hill.

Another cause of plug fouling is a

faulty carburetor adjustment. An over-rich fuel-air mixture setting can load the plugs with carbon, shorting them out. Your maintenance pub has the poop on making this adjustment.



When it comes right down to it, that maverick, "blackie carbon", is always around to foul up plugs. The trick is to keep him under control by putting your cleaning brand on him.

USE THE RIGHT TOOLS

But before you reach for any tools, remember that using the right ones is mighty important. None of that using an oversize socket wrench and tilting or cocking it to one side for a better grip. The wrench can slip on you and hit the plug—goodbye porcelain insulator . . . and plug!

You can avoid the damaging tilt by using these wrenches.

PLUG

USE WRENCH

18-mm, 7/8 inch hex	FSN 5120-243-7342
14-mm, 13/16 inch hex	FSN 5120-243-7345



From . . . Tool Kit, Aircraft Mechanic's general, FSN 5180-323-4692, SM 55-4-5180-A01 (30 Mar 62):

ADAPTER, SOCKET
WRENCH: 1/2-in male sq
plug, 3/8-in female sq
socket.



FSN 5120-240-8703

QM

SOCKET, SOCKET
WRENCH: deep style,
1/2-in sq-drive, 12 pt,
3/4-in wrench opng.



FSN 5120-243-7345

QM

SOCKET, SOCKET
WRENCH: deep style,
1/2-in sq-drive, 12 pt,
3/4-in wrench opng.



FSN 5120-243-7342

QM

WRENCH, CONNECTOR
NUT: single open end,
T-hdl, 3/4-in opening.



FSN 5120-546-5518

QM

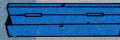
WRENCH ASSEMBLY,
SPARKPLUG: Single
open end, T-hdl, 3/4-in
opening.



FSN 5120-131-9554

QM

WRENCH, TORQUE: rigid frame end drive style,
w/audible or slip clutch indicating micrometer
adj for mech, 3/8-in sq male drive 100 to 750-in
lb cap., w/case.



FSN 5120-595-9073

QM

From . . . Tool Set, Organizational Maintenance, Set A, FSN 5180-323-4947; Set A (supplemental) FSN 5180-323-4948; Set B, FSN 5180-323-4979; Set C, FSN 5180-323-5037, SM 55-4-5180-A08 (28 Nov. 62):

EXTENSION, SOCKET
WRENCH: 1/2-in sq-end,
5-in lg.



FSN 5120-243-7326

SET A, B, C

QM

EXTENSION, SOCKET
WRENCH: 1/2-in sq-end,
10-in lg.



FSN 5120-227-8074

SET A, B, C

QM

HANDLE, SOCKET
WRENCH: rrvs rtc type,
1/2-in drive end, 9 1/2-in
lg overall.



FSN 5120-230-6385

SET A, B, C

QM

INDICATOR ASSEMBLY:
cold cyl.



FSN 6625-566-5202

SET A sup., B, C ORD

TAP: 14-mm, bottoming.



FSN 5136-230-3614

SET A, B, C

QM

TAP: 18-mm, bottoming.



FSN 5136-199-6705

SET A, B, C

QM

UNIVERSAL JOINT,
SOCKET WRENCH: 1/2-
in sq-end (Fed Spec
GGG-W-641, type XII).



FSN 5120-269-7971

SET A, B, C

QM

WRENCH, TORQUE: rigid frame end drive style,
w/audible or slip clutch indicating micrometer
adj for mech, 3/8-in sq male drive 100 to 750-in
lb cap., w/case.



FSN 5120-595-9073

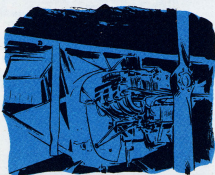
SET A, B, C

QM

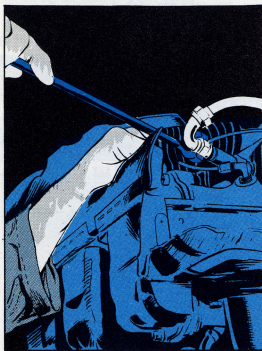
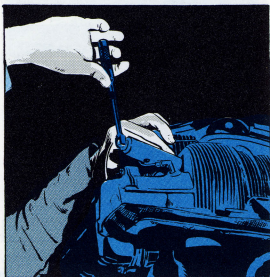
HAVE AT IT

Armed with the right tools, you're ready to restore your down-in-the-mouth Bird Dog to her ol' self again.

With the cowl off, make with the wrench on the ignition lead connector nut.



Next, put the socket wrench on the wrench handle. Slide the socket over the plug and make with the muscle power.

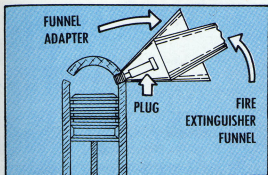


When the lead connection is broken, use your hand to come **straight** out with the lead. Otherwise any side force could damage the plug barrel insulator or the ceramic terminal on the lead.

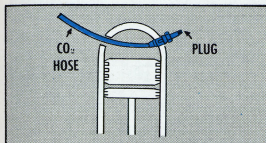
Of course, you never want to use a torque wrench here, since a higher torque is usually needed to loosen a plug. Then too, the torque wrench is designed for tightening only. Using it in reverse (for loosening) can throw it out of kilter right quick.

If a plug seems to be in the cylinder for keeps, don't reach for a wrench with a king-size handle—you don't want to leave part of the plug behind. A sheared plug can mean that the plug bushing in the cylinder has had it, and your only out would be a cylinder change.

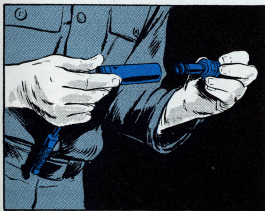
Instead, make a cone shaped metal adapter big enough to take the funnel of a carbon dioxide bottle. Spraying the carbon dioxide on the tight plug should do the trick. If not, try heating the cylinder head prior to again using the carbon dioxide.



If you still can't loosen the plug, you can take out the spark plug opposite the stuck one and rig up a line to play carbon dioxide on the plug threads from inside the cylinder.



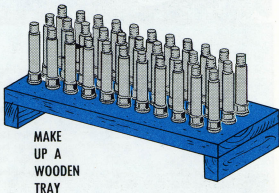
Once you have the plug in hand, treat it like a new born colt—gently. Plugs can take it when it comes to heat ranges but they're mighty fragile. If one is dropped on the floor you never put it back in the engine without looking it over real well for thread or electrode damage and without putting it in the Bomb Tester for an electrical test.



Even a thorough check may not detect damage to the plug. Take the recent case of a massive plug which bit the dust.

The plug checked out OK so it was put back in the engine. After a few hours of operation, a chip of porcelain went right thru the piston head. Result—a blowdown and crankcase fire.

That's why it's a capital idea to make



up a wooden tray (if you don't already have one) drilled to hold a number of plugs. The tray comes in mighty handy . . . beats carrying a fist full of plugs and maybe dropping some on the way to the tester.

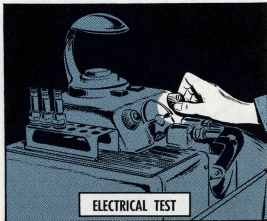




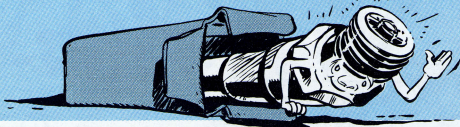
Here are the tools that you should now have in your spark plug servicing kit, which is part of the Organizational Maintenance, A Supplemental, B and C Tool Kits. The instruction book tells how to use them.

FSN	P/N	Nomenclature	Quantity
4910-786-9271	5612478	Kit-Spark Plug Servicing Consisting of:	
4910-787-4332	5610523	Chest	1
4910-787-0929	AV-11-1	Cleaner & Indicator	1
4910-787-4334	AV-19-3	Vibrator Unit	1
4910-787-4326	CL-248	Cleaning Tool	1
4910-056-7251	CL-251	Cleaning Tool	1
4910-056-7253	CL-273	Cleaning Tool (L.H.) 3 blade	1
4910-969-0904	CL-274	Cleaning Tool (R.H.) 3 blade	1
4910-969-0905	CL-286	Tool Holder	1
4910-969-0906	CL-275	Cleaning Tool (L.H.) 4 blade	1
4910-969-0908	CL-276	Cleaning Tool (R.H.) 4 blade	1
4910-787-4327	AV-20-3	Gapping Tool	1
4910-056-7250	CL-250	Gap Spacer (.016 nom.)	5
4920-700-4476	AV-10-1	Gapping Tool	1
4910-787-4328	AV-14-1	Gap Gauge	2
4910-787-4329	AV-17-1	Cleaning Tool Assembly	1
4910-787-0930	AV-241	Cleaning Tool	6
4910-787-4333	AV-7-1	Cleaning Compound	1
4910-787-4330	CL-3	Cleaning Compound	6
4910-969-0907	AV-24-1	Inspection Light	1
4910-787-4331	CL-73	Nozzle Package	1
		Instruction Book	1

When using the kit, used plugs get the full treatment—cleaning, re-gapping and bomb testing . . . that's understood.



THOSE NEW PLUGS



Remember, tho, that new plugs should also be eyeballed. How many times have you found the gap set wrong on a new plug? Plenty, no doubt!

When you adjust the electrode gap of the plug, the tolerance limits are, plus .002 inch (no-go) and minus .001 inch (go), from these settings.

Gapping tool, FSN 4910-787-4327, is used to adjust the fine wire plug and, FSN 4920-700-4476, is used for the massive type. Be sure you check your adjustment with gap gage, FSN 4910-787-4328.

Plug Part No.	Set At
AC 172, AC 272	.019 inch
All other plugs	.016 inch

BUT BEFORE YOU PUT A NEW OR RECONDITIONED PLUG IN THE ENGINE, KEEP THESE POINTERS IN MIND!

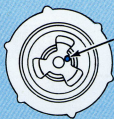
1. When you check supply for new plugs, continue to requisition the type you have been using until the supply is gone.
2. Then, use the plugs in this new list of approved plugs, keeping in mind that they are grouped into three categories.

PLUG A-B-C's

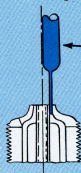
"A" Standard—these plugs will be issued when the prime FSN is requisitioned.

"B" Alternate—you'll be issued these plugs when the standard plugs are not available.

"C" Test Stand Depreservation Run—you order these plugs by FSN for ground use only. When they're gone, use standard plugs.



USE WIRE GAGE
FSN 4910-787-4328.
FLAT TYPE GAGE WILL
GIVE WRONG
MEASUREMENT
DUE TO CURVE OF
ELECTRODES.



GAGE MUST BE
PARALLEL TO CENTER-
LINE OF CENTER ELECTRODE.
TILTING OF GAGE WILL
GIVE WRONG MEASUREMENT.

PLUGS



HOWDY PARDNAH!
SASHAY IN 'N
LOOK OVER MAH
STRING OF
PLUGS.

GROUP I Prime FSN 2925-056-7053

Fine wire (platinum) electrode—14mm shell thread, 1/2-in reach 5/8"-24 shield thread.

Actf Engine

FSN
2925-701-9992
2925-541-7286

Plug part
number
SR47P
REL388
(Massive plug)

OH-13E & G
O-335-5
A
C

OH-23B & C
O-335-6
A
C

GROUP II-A Prime FSN 2925-056-7058

Fine wire (platinum)—18mm shell thread, 13/16" reach, 3/4"-20 shield thread.

FSN	Plug part number	Actf Engine			
		UH-19D* R1300-3	CH-21C R1820-103	CH-34** R1820-84	CH-37 R2800-54
2925-587-6936	RB39R	A	A	A	A
2925-328-2018	AC281	A	A	A	A
2925-801-8456	RHB36P	A	A	A	A

GROUP II-B Prime FSN 2925-056-7057

(Same as Group II-A, except Massive.)

2925-733-3516	SL300A	A	A	A	A	A
2925-639-6677	RHB37N	A	A	A	A	A
2925-141-9261	AC271	A	A	A	A	A
2925-684-2988	RHB29N	C	C	B, C	C	C
2925-646-7957	BG341	C	B, C	B, C	B, C	B, C
2925-701-9991	AC272	B, C	C	C	C	C
2925-633-6859	AC273	C	C	B, C	C	C
2925-859-8579	RHB32N	C	C	B, C	C	C

*Remember, AC272 gets gapped .019-in. But if you can't get it use massive-type plugs AC271, RHB37N or SL300A . . . gapped to .019-in.

**In a hot spot, with a heavy load, you may need a cooler plug to prevent pre-ignition . . . use AC273 or RHB32N.

**GROUP III-A
Prime FSN
2925-056-7054**

Fine wire (platinum)—18mm shell thread, 1/2" reach, 5/8"-25 shield thread.

FSN	Plug part number	Acut Engine								
		UH-19C R1340-57	U-1A R1340-59 R1340-61	TO-1A, E O-1A, E O-470-11	O-1F TO-1D O-470-15	U-6A R985	U-8D, F O-480-1, 3	OH-13H O-435-23B	OH-23D O-435-23B	OH-23F O-540-9
2925-554-6473	SR83P	A	A	A	A	A	A	A	A	A
2925-554-5457	RB485S	A	A	A	A	A	A	A	A	A
2925-986-7085	REM38P	A	A	A	A	A	A	A	A	A
2925-986-7084	PH26						B	B	B	B

**GROUP III-B
Prime FSN
2925-056-7052**

(Same as Group III-A, except Massive.)

FSN	Plug part number	UH-19C R1340-57	U-1A R1340-59	TO-1A, E O-470-11	O-1F TO-1D O-470-15	U-6A R985	U-8D, F O-480-1, 3	OH-13H O-435-23B	OH-23D O-435-23B	OH-23F O-540-9
2925-986-7082	REM40E	A	A	A	A	A	C	C	C	C
2925-580-4931	SH20A	A	A	A	A	A	C	C	C	C
2925-711-9411	SR87	A	A	A	A	A	C	C	C	C
2925-720-3162	919SR-5	C	C	B, C	B, C	B, C	C	C	C	C

**GROUP IV-A
Prime FSN
2925-056-7056**

Fine wire (platinum)—18mm shell thread, 13/16" reach, 5/8"-24 shield thread.

FSN	Plug part number	Acut Engine		
		UH-19D*** R1300-3	CH-21C R1820-103	CH-37 R2800-54
2925-142-8731	AC181	A	A	A
2925-037-7707	RB27R-1	A	A	A
2925-142-8733	RB19R-2	B, C	B, C	B, C

**GROUP IV-B
Prime FSN
2925-056-7055**

(Same as Group IV-A, except Massive.)

FSN	Plug part number	UH-19D*** R1300-3	CH-21C R1820-103	CH-37 R2800-54
2925-328-2016	AC171	A	A	A
2925-639-6675	REB37N	A	A	A
2925-733-3520	SL30A	A	A	A
2925-508-3830	AC172	B, C	C	C

DRONE

Fine wire (platinum) electrode—18mm shell thread, 1/2" reach, 5/8"-24 shield thread—no resistor.

FSN	Plug part number	Acut Engine	
		USD-1 O-100-2 (McCulloch)	A
2925-294-3893	RB916S		

TURBINE ENGINE IGNITERS

FSN	Igniter part number	Acut Engine		
		CH-47B T-55-L-5	UH-1A T-53-L-1A	OV-1A, B, C, D T-53-L-3, 7
2925-871-3460	10-157780-1	A	A	
2925-618-0965	HE7	A	A	
2925-767-5516	10-165660-1			A
2925-881-3770	FHE113X2			A

***AC172 is also gapped to .019-in. But if you can't get it, use massive-type plugs, AC171, REB37N or SL30A, gapped to .019-in.



MAKE OTHER CHECKS



If the package of plugs was damaged, all the plugs go back to supply for accountability. You'll be issued new plugs.

Should you find carton lint or other stuff in a plug gap or firing chamber, just blast it out with the bomb tester.

Badly nicked or damaged threads, cracked electrodes, or any rusting condition, means that the plug gets turned back for a new one.

Of course, any foreign matter in the shielding barrel, or any metallic filings in the terminal well, can also be air blasted out.

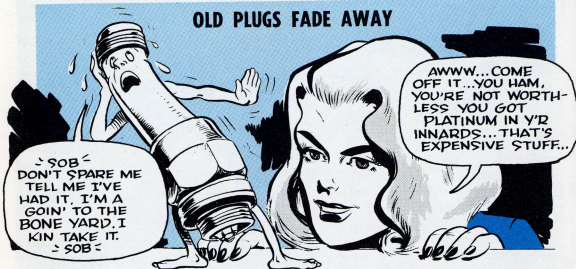
Then too, any crack in the center electrode insulator or shielding barrel insulator and in the shell at the root of the last thread below the gasket seat is reason for you to reject the plug.

Don't overlook the all-important gasket, either.

Toss all **used** gaskets, no matter how good they look. Use **one NEW**, undamaged gasket on each plug. And if a thermocouple gasket is called for, that's the only one you need.

For the 18-mm plugs, use copper gasket, AN 4027-1, FSN 5310-285-3589. For the 14-mm plugs, use AN 4027-2, FSN 5330-285-3588.

OLD PLUGS FADE AWAY



Plugs are a condition replacement item. You should get at least 200 hours from a massive-type and 400 hours from a fine wire-type. When you come up with a shot plug, here's what you do.

All unserviceable plugs get demilitarized and turned into the property disposal yard. There the massive-type gets scrapped, while the fine wire-type is reported to the Defense Surplus Sales Office to be sold as unserviceable plugs containing platinum.

If, per chance, serviceable plugs are turned into the property disposal office,

they don't get demilitarized. They're offered for sale by DSSO as usable plugs.

The only exception to this is if the plugs are to be shipped with an engine that had, say, an internal failure. The plugs then get shipped with the engine, according to TB AVN 24-16 (27 Aug 63).

Meanwhile, back at the ranch, your bird has been patiently waiting for the spruced-up plugs that'll put 'er back in the pink.



EYE BUSHING, LEAD



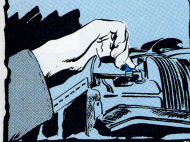
If the plug bushing or heli-coil insert in the cylinder is clean, chances are good that you won't need any release compound when you put the plug back.

If you do use the compound, tho, be sure to follow TB AVN 25-8 closely. Your bird can act like a buckin' bronc, due to plug fouling, if the compound isn't put on the plug just so.

TORQUE PLUG

All set to put the plug back? Good.

Screw the plug into the cylinder.



Set the torque wrench—220-260 inch-pounds for 14-mm plugs; 300-360 inch-pounds for 18-mm plugs.



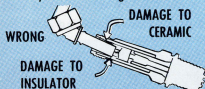
With the socket wrench on the torque wrench, make with the muscle power.



The next step is to hook up the spark plug lead. But before you do, give'er the once over for damage and cleanliness. If any release compound was used before, you've got to clean the terminal sleeves, contact, and integral seal with acetone, wood alcohol, naphtha, or white gasoline. Don't use any leaded Av Gas or carbon tetrachloride.

If you decide to re-apply the compound, again be sure to follow the poop in TB AVN 25-8. Usually a clean, dry lead will fill the bill.

Put the terminal connector straight into the spark plug shielding barrel. Easy does it—like you're threading a needle.



Tighten the terminal nut hand tight. Then make with the crowfoot wrench, $\frac{1}{4}$ to $\frac{3}{8}$ of a turn.



The last step is to run the engine up to check out the plugs.

You say you're just about to run 'er up! Good deal.

Now that's more like it. Danged if she doesn't sound like her ol' self again. Sashay over to the chuck wagon—you've earned a coffee break.



A PEPPY PIPSY PULSATOR, OR...



COMMUNICATIONS



So you just got your new PU-532/PPS-4 generator set.

Naturally, you wanna put it to good use. Like shooting a full charge to your Pipsy-4 radar set batteries. And maybe operating the radar from it at the same time.

Or getting away from a not-so-ideal vehicle battery hookup.

You can do it, but there's a "best way" for charging the PPS-4 battery, the BB-422/U, f'rinstance.

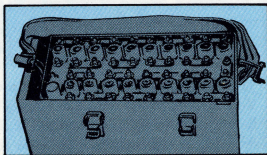
The PU-532 lets you charge up to two BB-422's and still generates enough spare power to operate the Pipsy-4—at the same time!

It takes 2½ hours to give a full jolt of juice to one BB-422, and four hours if you're charging two batteries in parallel (don't charge more than two batteries at a time or you'll overload the generator).

The charging method for one or two batteries is the same. Lend an ear.

When you take the battery out of service, clean it as per Change 2 to TM 11-6140-202-15. Then, put it on a clean dry surface.

Inspect it for electrolyte leakage, bad or missing connectors and bad leads. If you find any, ship it off to your support for repair.



Otherwise, remove the cell vent caps and put them in distilled water. Adjust the electrolyte to ¼ inch above the plates . . . if necessary.



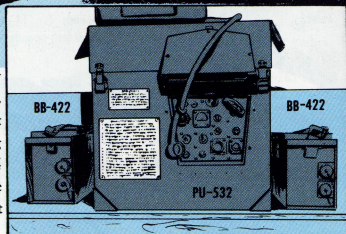
A PEPPY PIPSY PULSATOR, OR...

COMMUNICATIONS

HOW TO GET A

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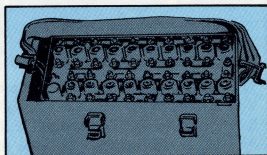
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CHARGE OUT OF YOUR PU-532

BB-422

Now for the charge

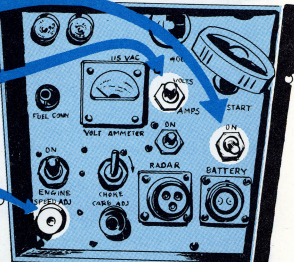
Put the generator BATTERY switch in OFF position.

Set the meter switch to VOLTS.

Start the generator.

Adjust the ENGINE SPEED ADJ knob of the PU-532 until you get a 35-volt open circuit battery voltage on the generator panel voltmeter.

Let the generator run for 10 minutes.



Then with either the AN/URM-105 or TS-352/U multimeters, monitor the open circuit voltage across the BATTERY charging receptacle. Put the BATTERY switch to ON for this.

SELECT THE CORRECT VOLTAGE SETTING FROM THE FOLLOWING CHART:

BATTERY CHARGING TABLE

Temperature	Open Circuit Voltage	Charging Time	
		1 Battery	2 Batteries
Above 80°F	35V	2½ hrs	4 hrs
61° to 80°F	36	2½	4
21° to 60°F	37	2½	4
— 9° to 20°F	39	2½	4
— 20° to —10°F	40	2½	4

To prevent generator damage, don't exceed 40 volts at any time.

CHARGE OUT OF YOUR PU-532

BB-422

Now for the charge

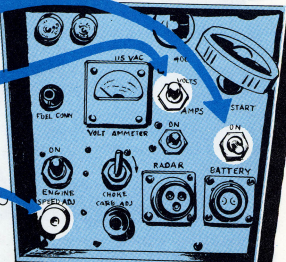
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Start the generator.

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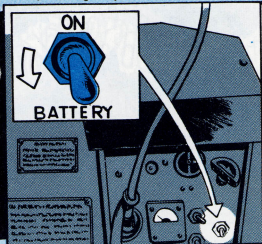
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Above 80°F	35V	1 Battery	2 Batteries
61° to 80°F	36	2 1/2 hrs	4 hrs
21° to 60°F	37	2 1/2	4
-9° to 20°F	39	2 1/2	4
-20° to -10°F	40	2 1/2	4

To prevent generator damage, don't exceed 40 volts at any time.

Readjust the ENGINE SPEED ADJ knob so's the multimeter gives you the voltage reading you want (the small generator meter, coupled with vibration, can't be depended on for this. That's why you use the multimeter). Engine speed increase affects only the battery charging circuit. The radar circuit is independent and has a constant output of 24½ volts—no matter what the engine speed is.

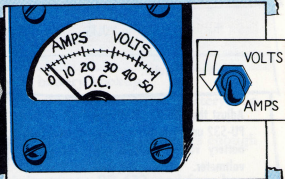
Lo, your patience hath been rewarded. You are about to make the charging hookup. But first, set the BATTERY switch to the BATTERY (off) position and remove the dust cap from the battery (or batteries).

OK. Now! Connect the battery to the generator with your CX-8797 cable. If you're charging two, interconnect the batteries with Cable CX-8798/U (they're part of Cable Kit, MX-4765/PPS-4, FSN 6115-957-3709). Be sure the cables are seated right.



Turn the BATTERY switch to ON (Don't get shook if the engine speed decreases. It'll pick up in a minute or two—as the load decreases).

As the battery nears full charge, you get a clue from increased gassing. Also, the charging current should level at 2 amps or less (to check, flip the switch on the right of the volt-ammeter to AMPS).



A caution here: If gassing comes too fast (or there's too much), lower the charging voltage by slowly rotating the ENGINE SPEED ADJ knob counterclockwise.

And, pretty soon your battery should be charged.

But just a cotton-pickin' important minute here, man!

Never, never, NEVER disconnect that cable from the battery until the generator's completely off. It's a must in avoiding explosions and bad burns!

First—set the battery charging receptacle switch to BATTERY (off). Then—turn the generator's fuel cutoff valve (CHOKE CARB ADJ) clockwise—IF the generator is not powering the radar, also. The generator will stop when the fuel line and carburetor are empty.

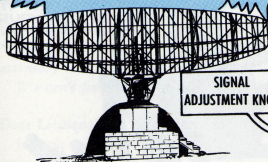
Now you can disconnect the CX-8797 from the generator and battery.

Don't touch the fuel cutoff if you're powering the radar. Instead, set the battery charging receptacle switch to BATTERY (off) and disconnect the CX-8797.

Unless you need the charged battery soonest, let it sit for a half-hour or more. After the wait, inspect and readjust the electrolyte level of each cell. Remove the cell vent caps from their bath and rinse them with clean distilled water. Dry the caps, and replace them on the battery.

Put the cover back on the battery case—and you're ready for business.

12 GOOD TURNS ARE ENOUGH



'N WE SHOULD KNOW
WE INVENTED IT ABOUT
A THOUSAND YEARS
AGO.



Here's a hot flash on your AN/FPS-36, -61, -69, -71 and -75 radar sets.

The AM-1570/TPS-1D electrical amplifier-filter assembly is taking a beating because some knob twisters are turning the SIG ADJ control too many turns counterclockwise. First thing you know, the screwhead breaks off at the bottom of the tuning slug and damages the crystal mixer assembly.

So how far can you go counterclockwise? No more than 12 turns. Just so you and everyone else will know, you can paste up an adhesive label below the control saying:

"Caution: When adjusting the SIG ADJ control, do not rotate the knob more than 12 complete turns counterclockwise from the extreme clockwise position or the signal mixer assembly will be damaged."



NO VRC-10 FOR THE M38A1D

Dear Half-Mast,

We have a problem with the AN/VRC-10 radios. They are issued to Davy Crockett squads for mounting on M38A1D vehicles. There's no room to mount them.

What's the poop?

CWO J. W. N.

Dear Mister J. W. N.,

You're so right—there is no room. The VRC-10 is issued to DACRO squads, but not for mounting on the M38A1D.

The M38A1D has just enough space for two squad members and the mounted weapon system. Back blast from the weapon would probably damage the radio, anyway.



SO-O-O-O... WORD FROM THE TOP IS THAT THE RADIO,
ADDITIONAL AMMO AND THE REST OF THE SQUAD
RIDE IN ANOTHER VEHICLE.

THE BASE OF IT

"CLICK=WHIRRR,
WHY-ARE-YOU-
DISMANTLING MY
HEAD-SIR...
=CLICK=

BECAUSE THAT
"GREASY KID" STUFF
YOU USE RUINS THE
WASHERS ON YOUR
ANTENNA BASE...

Insulator. Cushion. Lock washer.

A man could make a healthy list of the things the two large rubber washers do on the AB-15/GR mast base.

That's why it's plenty important to have the washers and to install 'em right. Foul the works, and the upper and lower ceramic insulator cups won't do their job. Your antenna won't perform right, and neither will your radio set.

That unwanted mess happens when both washers are installed on the same side of the mounting surface of the antenna mount or when the lower washer is put on before the grounding ring.

So what to do?

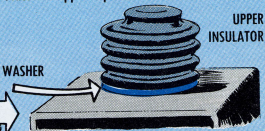
First, put one washer on top the mounting surface.



With the ground tie detached, hold the grounding ring against the underside of the mounting surface.



Place the upper cup insulator on the washer.



Place the other rubber washer on the lower cup insulator, and



RE-ATTACH THE
GROUND TIE, AND
YOU'VE GOT IT
MADE.

VRC-12 CABLE CONNECTORS

Dear Half-Mast,

How about locating FSN's for the two connectors on the CX-7867/VRC cable assembly used with the AN/VRC-12 series radio sets?

We can't find a stock number. Any information will be appreciated.

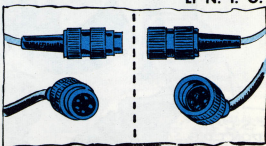
Lt N. I. G.

Dear Lieutenant N. I. G.,

It took a little sweat, Sir, but here goes:

The connectors you want are the U-181/U, FSN 5935-892-9249, and the U-182/U, FSN 5935-892-0663 (both are male).

They go on three sizes of cables, Sir, so here's an FSN bonus on complete assemblies:



6-ft assembly, FSN 5995-889-1021, part of installation kits FSN 5820-892-0783, 5820-892-3385, 5820-892-3386 and 5820-892-0993.

10-ft, FSN 5995-889-1130, in kit FSN 5820-892-3387.

25-ft, FSN 5995-889-0833, in kit FSN 5830-892-3711.

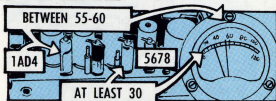
THE INSTALLATION KITS ARE IN THE REVISED SB 11-131 (SEP 63), AND THE BREAKDOWN OF ASSEMBLIES, CONNECTORS, ETC., IS IN THE NEWEST SB 11-466.

A GOOD DEAL

THANKS, OL' BUDDY OL' PAL.



AWWW IT WAS NOthin'.



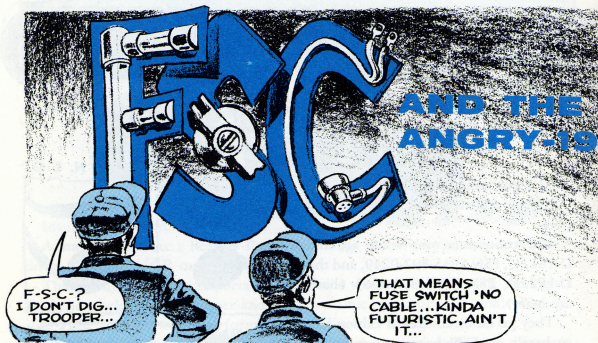
You want to do yourself and your support outfit a big favor when you're setting the 5678 and 1AD4 tubes in your AN/VRC-19, -19X or -19Y radio set at minimum values?

OK . . . then make sure the meter on your electron tube test shows a reading of between 55 and 60 for the 1AD4

and at least 30 for the 5678.

The figures don't jibe with those in TB 11-6625-274-12/1 (Jan 62), but you'll find your radio will operate better and last longer if you use 'em. And your support unit will find it easier to aline the set when it goes to them for work.

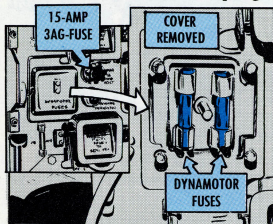
Half-Mast



"FSC." That's a sneaky way to get in Fuse-Switch-Cable PM on an AN/GRC-19 radio set.

An extra minute or two with that FSC can keep your radio humming. Initially, it pays.

"F," f'rinstance, concerns a coupla' three fuses, their width and amperage.



Stretching a point or two, you might try to interchange the 10-amp and 30-amp, 4AG dynamotor fuses (F602 and F603) of the T-195 transmitter with

the 15-amp, 3AG 24V front panel fuse (F601) of service selector switch and other fame.

It's possible, but it's a waste of time.

No. 1—The amperage is wrong.

No. 2—The fuses don't properly fit each others receptacles.

The reason for No. 2 is difference in diameter. "3AG" and "4AG" clue you here. That's the width, and the 4AG is wider. Which means if you put the 3AG in the 4AG clips, all it'll do is rattle around. You'll get anything but solid contact. Same deal for trying to put the 4AG in the 3AG receptacle. It won't fit.

A fast look at the fuse'll tell you what you have. The amperage and the diameter (4AG-3AG, etc.) will be stamped into the metal ends. You can get the right fuse like so:

F602, 10-amp, 4AG—FSN 5920-142-4824
 F603, 30-amp, 4AG—FSN 5920-565-0035
 F601, 15-amp, 3AG—FSN 5920-012-0151

FSC AND THE ANGRY-19



F-S-C-?
I DON'T DIG...
TROOPER...

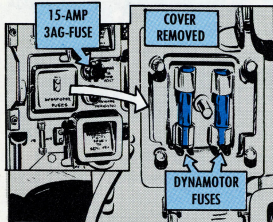


THAT MEANS
FUSE SWITCH 'NO
CABLE...KINDA
FUTURISTIC, AIN'T
IT...

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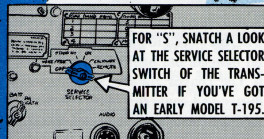
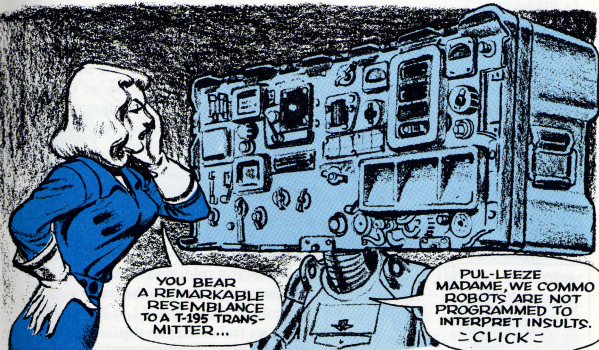
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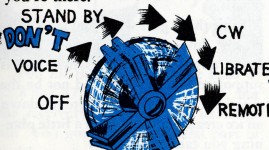
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Now, say you wanna' go from "OFF" over to "REMOTE" or "CALIBRATE." Normal thing is for a man to want to get there soonest, with one swing of the switch. Like, cli-ck-ck-ck-ck-ck! and you're there.

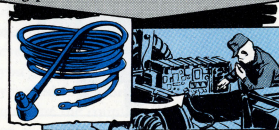


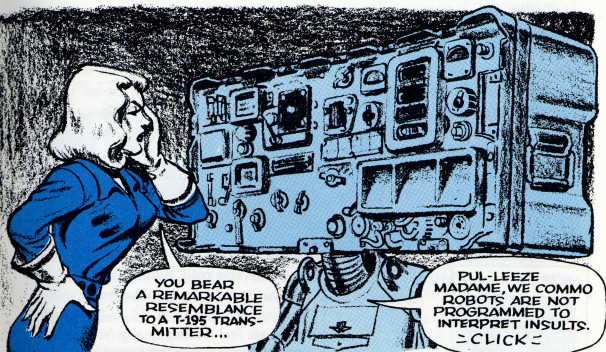
Well, maybe you are. And then, maybe the relays haven't kept pace . . . meaning the switch may be pointing at

"REMOTE" or "CALIBRATE," but the relays have you back at "CW" or "STAND BY." Meanin' you ain't with it, Mac.

To avoid question-marked eyeballs, try this: Turn the service selector switch one click at a time. Wait a second or so at each position (CW, STAND BY, etc.) so the relays have time to cut in and carry you to the next position. When you get where you're headed, the relays will give you contact on the position you want.

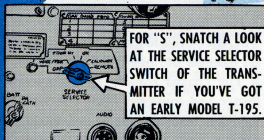
"C" clues you on cable care concerning power cable CX-2583.





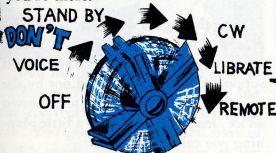
YOU BEAR A REMARKABLE RESEMBLANCE TO A T-195 TRANSMITTER...

PUL-LEEZE MADAME, WE COMMO ROBOTS ARE NOT PROGRAMMED TO INTERPRET INSULTS.
- CLICK -



FOR "S", SNATCH A LOOK AT THE SERVICE SELECTOR SWITCH OF THE TRANSMITTER IF YOU'VE GOT AN EARLY MODEL T-195.

Now, say you wanna' go from "OFF" over to "REMOTE" or "CALIBRATE." Normal thing is for a man to want to get there soonest, with one swing of the switch. Like, cli-ck-ck-ck-ck-ck! and you're there.

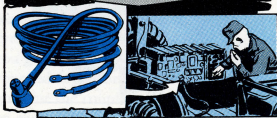


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"C" clues you on cable care concerning power cable CX-2583.



It's well-known SOP to remove the radio when you wash your vehicle, but many times users forget the power cable after disconnecting it from the radio. They leave the cable in the vehicle.

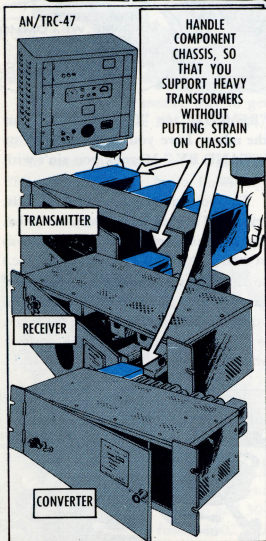
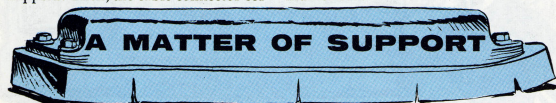
So what happens?

Water gets to the cable, that's what happens. Then, the cable connector cor-

rodes . . . and you get poor or no contact. Result: No juice to operate the set.

To avoid it, disconnect the CX-2583 from the radio and the vehicle battery and store the cable with the set until you finish washing the vehicle.

In short: FSC . . . For Sure Communication.



Naked to a cold, cold world!

That's about the way the major components of your Track-42 or Track-47 radio set feel when you slip 'em out of the cabinet.

And it's a lot of gentle handlin' and TLC they need to keep 'em from gettin' all banged and bruised.

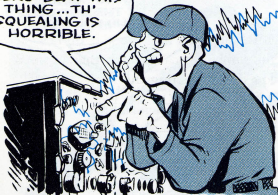
The chassis for the receiver, transmitter and converter were not made to support the heavy weight of the transformers and other circuit elements without some help from the radio cabinet. So any time you slip out one of the component chassis, handle it so that you support the transformer weight and keep it from putting a strain on the chassis.

Same thing goes when you lay a component down—like on a work bench. Lay it down so that the transformer is supported by the bench and not by the chassis. It's sorta like trying to lay down an ice cream cone, but with a little planning you can do it.

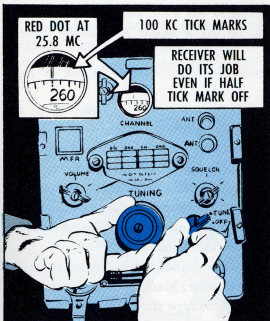
One thing's for sure: Never stand any of the components on their ends. The chassis just can't take it.

CAMMON!
ZERO-BEAT THIS
THING...TH'
SQUEALING IS
HORRIBLE.

TUNE IN ON THIS



So there you are with your R-108 thru -110 receiver: One hand's holdin' the dial light switch on TUNE, and the other's on the tuning control . . . swinging the channel dial toward the 25.8 mc calibration point.



You hit the red dot on the head at 25.8 (or 47.3 mc on the R-110), but the receiver's still squealin' its lungs out. You gotta swing the dial part of a tick mark, or scale division, to get your zero beat. But you do get the zero beat, and you get it within half a tick mark of the red dot.

OH YEAH!
THIS HERE
LITTLE GUY
THINKS IT'S
BEAUTIFUL.
SOUNDS LIKE
STUFF FROM
HIS HOME
PLANET.



Now, some Joe not in the know might rush his set off to his support to get it calibrated. He's wasting his time and theirs.

You, being in the know . . . at least as of now . . . wouldn't do that, because you're aware you can be up to a half tick mark, or 50 kc, off the calibration points (red dots). The receiver'll still do its job.

Being really with it, you know that your dial adjustment (calibration corrector) screw can pull that red dot back to the dial needle even if you got your zero beat two full tick marks (200 kc) from the dot. Your TM fills you in.

IT ISN'T NECESSARY
TO REACH FOR
THE MAINTENANCE
REQUEST FORM OR
EVEN FOR THE
SCREW DRIVER.
THE SET IS DOING
ITS JOB.



So wot now? So-o-o, the big point to remember is: Don't reach for the maintenance request form, and maybe don't even reach for the screwdriver, when you get your zero beat within 50 kc of your red dot calibration point. And that goes for the coupla' calibration points on each R-108, R-109 and R-110.



HEY SARGE!
WHO MAKES
THE ENTRIES?
HIM OR ME?

EASY NOW!
YOU BOTH
DO!

ON PB PAGES

Dear Half-Mast,

AR 735-35 (16 Mar 62), "Supply Procedures for TOE units, Organizations and Non-TOE Activities," in para 11c says to use a pencil in making certain entries.

Where the pencil's not mentioned, should we make entries in ink or type them?

Mr. R. J. M.

Dear Mister R. J. M.,

Penciled entries give supply info which is likely to change often (like total allowance, current operating allowance, unit price, date of last handreceipt posting and location of item by handreceipt number).

All permanent-like entries must be in ink (blue, black or blue-black ink). It's OK to type these entries, of course, but about the only time you can conveniently type a DA Form 14-110, for example, is when you're starting out a page for your property book.

And, I guess you've noticed, the AR's para 11c(1)(1) OK's the use of a date stamp in the date column.

Half-Mast

ISSUE OR LOCATION					
DATE	QUANTITY	HAND REC. NO.	DATE	QUANTITY	HAND REC. NO.
1 APR 64	2	10	SER No. 222458		
1 APR 64	2	6	209542		
2 APR 64	5	14	4A780		
2 APR 64	3	1	227710		
			2764		
			562		
			501		
			520		
			20		
			30		
			10		
			30		

DA FORM 14-110
1 MAR 62

REPLACES EDITION OF 1 SEP 57 WHICH WILL BE ISSUED UNTIL 1 MAR 63 UNLESS SOONER EXHAUSTED.

ORGANIZATION (INSTALLATION), PROPERTY REQUIRED (AR 735-35)

ORGANIZATION OR ACTIVITY: 5th MAINT BN SUPPLY CODE NO.: 933

DATE	DOCUMENT NUMBER	RECEIVED	TURNED IN	BALANCE
11 Dec 63	630	12		12

ENTRIES IN BLUE ARE THE ONES YOU MAKE IN INK; THE BLACK ARE PENCIL

TECHNICAL SERVICE	TOTAL ALW	CURR OPERATING ALW
ORD	12	12

ONE STOCK NUMBER: EA 330-542-4783 LINE ITEM NO.: 46790-30

ITEM DESCRIPTION: TRUCK, UTILITY, 1/4-TON, 4x4, MIST

AUTHORITY: TOE 29-52E PRICE: \$3,790.

THE RIGHT LIN



Dear Half-Mast,

I was called down for using the line item numbers from our TOE in my property book, altho that's what para 11c(1)(b), AR 735-35 (16 Mar 62) tells me to do.

I was told that I should use the line item numbers from the SB's which list adopted items of materiel. But, in most cases, I find that the TOE line item numbers don't agree with the line item numbers in the SB's.

Which numbers should I use?

Mr. R. M.

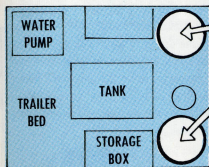
Dear Mister R. M.,

Normally it's safe to use the numbers in the publication with the latest date. However, from now on, current line item info should be a lot easier to come by.

The Army's adopted items of materiel are now listed in one big book—SB 700-20 (Sep 63), "Army Adopted Items of Materiel." It replaces the old SB's which listed the separate items of the various support services.

Half-Mast

BARREL THEM



—which we get from the post laundry.

We paint the barrels to make them durable and resistant. Then, we label the barrels with "Diatomite" or "Limestone" and store them in the van or trailer.

Since the limestone and diatomite come in paper bags—and since the bags break or spill once they've been opened—the barrels work great.

7th Engr Bn
Fort Carson, Colo.

Dear Editor,

Here's a supply saver that should help Engineer units everywhere:

To stop spillage and waste of materials used with our water purification units, we store the bags of powdered limestone and diatomaceous earth (diatomite) in clean, discarded fiber barrels



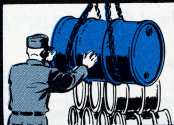
Those lube drums are not as tough as you think, so treat 'em kindly, eh? Especially the 18-gage specimens that're sort of taking over for the double-seamed 16-gagers.

Come right down to it, of course, what you have to worry about are the drums and their contents . . . and what fouled-up lube'll do to valuable equipment. In other words, you worry about leaks . . . at the openings, seams and sides.

UNLOADING

Use one of these ways that best suits your needs:

1. Use drum skids or hoists, as a first choice.

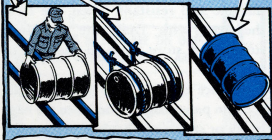


2. Use a ramp if one's handy, or make a set of tracks out of 12-ft lengths of 4x4's (2x4's aren't strong enough).

Roll 'em down the ramp or tracks by hand—but never let 'em roll free.

Or, "feed" 'em down with ropes.

Or, slide 'em down "feet" first.



3. Don't drop the drums at all if you can use one of the other ways. But, if you're in the field and dropping 'em seems to be the only way, here's what to do: Drop 'em "feet" first on a big truck tire. If you drop 'em on their side, you could split the seams.



No matter which method you use, though, don't let the drums bump together. And never roll drums over rocks or uneven surfaces.



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UNLOADING

Use one of these ways that best suits your needs:

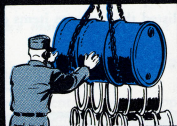
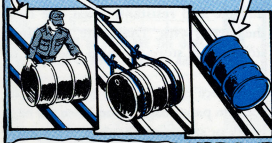
1. Use drum skids or hoists, as a first choice.

2. Use a ramp if one's handy, or make a set of tracks out of 12-ft lengths of 4x4's (2x4's aren't strong enough).

Roll 'em down the ramp or tracks by hand—but never let 'em roll free.

Or, "feed" 'em down with ropes.

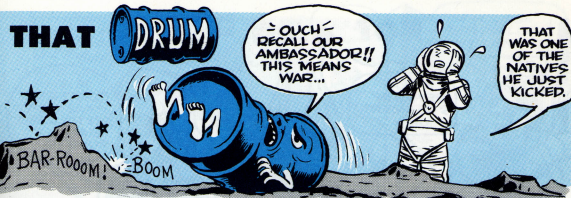
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3. Don't drop the drums at all if you can use one of the other ways. But, if you're in the field and dropping 'em seems to be the only way, here's what to do: Drop 'em "feet" first on a big truck tire. If you drop 'em on their side, you could split the seams.



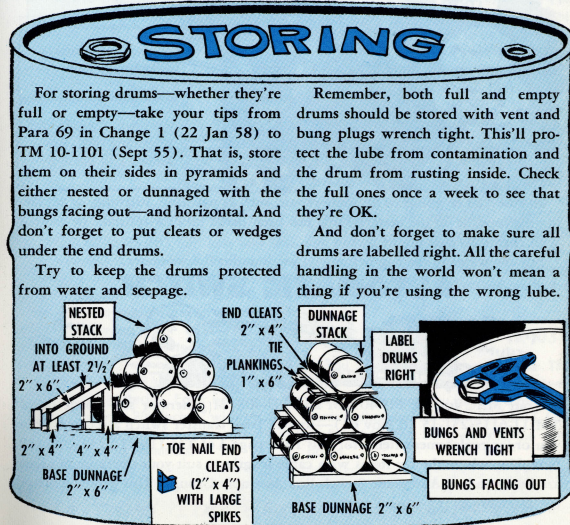
No matter which method you use, though, don't let the drums bump together. And never roll drums over rocks or uneven surfaces.



If there's a leak, switch the oil to a tight, clean container. But, before you unscrew or remove the plug, wipe all dirt and moisture from around the opening.

Now, there're only two times you

have to worry about drums—when you're handling 'em and when they're stored. So, all you have to do is to find the right way to do each and follow through from there.



THAT



"OUCH!
RECALL OUR
AMBASSADOR!!
THIS MEANS
WAR..."



"THAT
WAS ONE
OF THE
NATIVES
HE JUST
KICKED."

If there's a leak, switch the oil to a tight, clean container. But, before you unscrew or remove the plug, wipe all dirt and moisture from around the opening.

Now, there're only two times you

have to worry about drums—when you're handling 'em and when they're stored. So, all you have to do is to find the right way to do each and follow through from there.



STORING

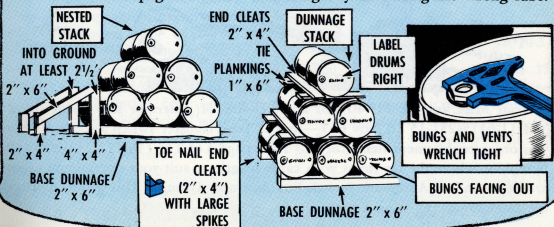


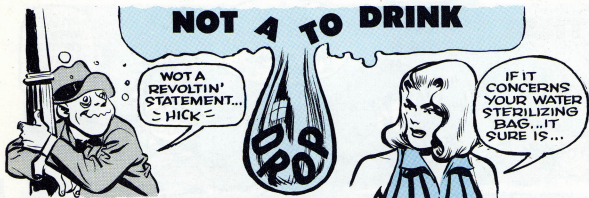
For storing drums—whether they're full or empty—take your tips from Para 69 in Change 1 (22 Jan 58) to TM 10-1101 (Sept 55). That is, store them on their sides in pyramids and either nested or dunnaged with the bungs facing out—and horizontal. And don't forget to put cleats or wedges under the end drums.

Try to keep the drums protected from water and seepage.

Remember, both full and empty drums should be stored with vent and bung plugs wrench tight. This'll protect the lube from contamination and the drum from rusting inside. Check the full ones once a week to see that they're OK.

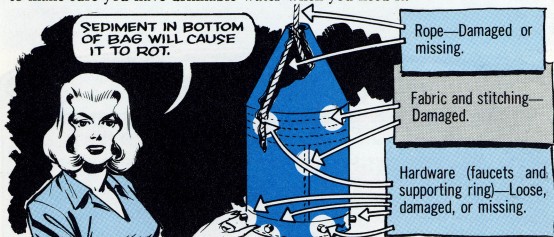
And don't forget to make sure all drums are labelled right. All the careful handling in the world won't mean a thing if you're using the wrong lube.





A stitch in time can save nine. It also might make the difference between having water to drink or going thirsty.

Here are things you check on your water sterilizing bag, FSN 4610-268-9890, to make sure you have drinkable water when you need it.



In case you're going to do some repair, such as patching, stitching, or replacing the rope, never use material that has been made mildew-resistant or treated with chemicals that might poison you.

Stir the water in the bag before you use it and it'll taste better.

AUTOMATIC SWITCH



Your MAC for the PU-407/M and PU-408/M generator sets—page 68 of TM 11-6115-231-15 (6 Nov 61)—lists a "Load transfer switch assembly." But you order replacement items for this from page 3 of TM 11-6115-231-20P (30 Nov 62), where the six items with cable lengths to suit your operational needs are listed under "Automatic Switch Box Assembly Group." This group replaces the assembly as it's phased out.

Connie Rodd's BRIEFS



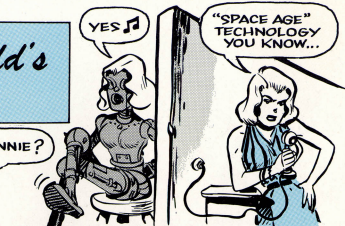
TRIED 'EM YET?

They're smooth, compact, lightweight and strong. And they come in two sizes. They're real handy to have around, especially if you have a dirty, greasy maintenance job to do.

Maybe you've already tried those paper wipers. If not—they're GSA items and the 13 $\frac{1}{3}$ -in x 22-in carries FSN 7920-823-9772. The 13 $\frac{1}{3}$ -in x 16-in has FSN 7920-823-9773. You use 'em instead of wiping rags.

GLOW BLINKER GLOW

Page 62 in PS 135 told how you can get yourself a portable light flasher to hang on any load that's sticking beyond your tailgate. TB 9-2300-260-10 says the light's available on an as-required basis by using FSN 6220-796-2657. Well, this FSN only gets you the light... less batteries. To make the blinker glow you'll need two BA-200/U (FSN 6135-050-3280) batteries. Each battery is 6 volts, length is 2 $\frac{5}{8}$ inches, width is 2 $\frac{5}{8}$ inches, height is 3 $\frac{3}{8}$ inches and it has two coil spring terminals.



VRC-12 CABLE KIT

You say you need the kit to install your AN/VRC-47 radio in an M38 or M38A1 $\frac{1}{4}$ -ton? Then you should know that the kit FSN on page 17 of SB 11-131 (Sep 63) has been changed to FSN 5820-892-0783. It used to be FSN 5820-892-3383. Also, the kit's not listed in the newest Issue Parts List for Vehicular Installation Units, SB 11-466 (28 Jan 64).

BAR PIX MIX

If your M1918A2 Browning Automatic Rifle comes back from support with bipod trouble, could be yon support guys were thrown for a loss by a mix-up in illustrations in the new TM 9-1005-208-35P (13 Feb 64). Tip 'em off that the illustration on page 17 and the one on page 21 got transposed. The nomenclatures under the illustrations are in the right place, though.

NEW TOOLS FOR THE TK-103

You mechanic types using the TK-103/USD-1 tool kit, surveillance system, should make sure you get the eight new items authorized for the kit in SB 11-580 (6 Feb 64). The SB gives you the run-down.

right now

**Would You Stake Your Life¹ on
the Condition of Your Equipment?**

Your gear
can stay
"GO"
only if
YOU
do your
maintenance
RIGHT
and
on time...



THIS IS TH' "CP"...
BACK HOME
THEY ARE PULLING
THEIR SUMMER
CHANGE-OVER SO
DON'T GRIPE!